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Manufacturers' Record.

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RICHARD H. EDMONDS, President.
THOMAS P. GRASTY, Vice-President.
FRANK GOULD, Secretary.
VICTOR H. POWER, Treasurer.

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RICHARD H. EDMONDS,
Editor and General Manager.

THOMAS P. GRASTY,
General Staff Correspondent.

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BALTIMORE, JUNE 8, 1905.

The Manufacturers' Record has
opened an office in New York at 52
Broadway.

Mr. Fred. G. Brown, president and
treasurer of the Anderson Phosphate &
Oil Co., Anderson, S. C., writes to the
MANUFACTURERS' RECORD as follows:

This company has been a subscriber to
your valuable paper for some years and it
is always a welcome visitor to our office, as
it is brim full of information and is a great
upbuilder of the South.

SOUTHERN CANMAKING.

A letter published in the MANUFACTURERS' RECORD from the Texas Canner Co. of Mt. Pleasant, Texas, to the One Hundred and Fifty Thousand Club of Dallas, Texas, calls attention to the fact that canning factories ranging in size from a capacity of 500 to 20,000 cans per day are being established throughout Texas, Arkansas, Louisiana and Indian Territory, creating a great demand for tin cans, labels, solder, etc. It is pointed out in the letter that the demand for these materials cannot be supplied south of Baltimore, and the suggestion is made that a company be organized to establish a canmaking and supply depot in Dallas.

The development of the canning business in the South, long delayed, but now being vigorously pushed, makes timely the suggestion of the establishment of a tin-can factory in the central South or Southwest. In former years Baltimore was not only the center of the can-goods trade, but the center of the tin canmaking industry of the country. This city cannot, of course, continue to hold a monopoly in the future to the same extent as it has in the past, since the development of local industries throughout the South creates a local demand which must naturally result in the building of tin-can factories. In nearly every line of industry there is a marked shifting

of this character in progress, all tending to the utilization in the South of the natural resources of that section, to its own enrichment and to the enrichment of the entire country, since such well-rounded development of all sections is far better for the good of the whole country, although the shifting of industries may here and there cause some hardships.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 63, 64 and 65.

THE NEXT SOUTHERN PARLIAMENT.

"The movers behind the Southern Industrial Parliament, embracing some of the foremost men of the nation," are giving evidence that the project is of too great importance to them for it to be relinquished on account of its pathetic fizzle in May. They have diverse and devious methods of persuading this one or that one in public life to sponsor their scheme, and they will cling to it without showing their hand as long as they feel that they can fool one Southern person or one Southern newspaper. Consequently the Southern press may shortly expect to be served from Washington with a string of fairy tales about the "Parliament" surpassing in their weirdness and boldness even the assistance for newspaper services perpetrated last month. Such a feat will necessitate an enormous strain upon the imagination of the authors of the romances, and so, for their relief and for the relief in advance of a long-suffering but patient public, the MANUFACTURERS' RECORD suggests the following:

Washington, D. C., June 8.—Reports from all over the country indicate that most enthusiastic receptions in their respective home cities have been tendered the forty-odd delegates who constituted the Southern Industrial Parliament of May 23-25. The local militia in some cases met them at the depot and fired a salute of 21 guns as they emerged from the train; in other places they were welcomed by a procession of the Chamber of Commerce, the Board of Trade, the Women's Auxiliary to the Civic Improvement League and a host of prominent citizens and citizenesses, while at other points the four white horses with plumes were released from the waiting barouche and the delegate was hauled in triumph by hundreds of willing hands to his home. Those "behind the movement" recognize in these hearty manifestations evidences of a deep realization on the part of the great heart of the American people of the epochal character of the great meeting at Washington, endorsed by Southern statesmen, local and national, and received by "our noble President of the whole people," in spite of the criticism of such journals as the MANUFACTURERS' RECORD of Baltimore, inspired by the selfish desire to prevent the South from being represented as a sucker.

The spontaneous purpose to entertain the next bimonthly meeting of the Parliament in October, adroitly generated from Washington at the anti-climax of the wonderful outpouring of the Southern populace there, is spreading like a prairie fire throughout the length and breadth of the South. Already 27 of the leading cities of that section, including Raleigh, N. C.; Asheville, N. C.; Richmond, Va.; Savannah, Ga.; Macon, Ga.; Atlanta, Ga.; Birmingham, Ala.; Mobile, Ala.; New

Orleans, La.; Corpus Christi, Texas; Little Rock, Ark.; Louisville, Ky.; Andersonville, S. C.; Swainsboro, Ga.; Bunkle, La.; Dunn, N. C., and Falls Church, Va., the latter having the call at present because of the nearby attractions of the National Capital, have been invited to invite and entertain the Parliament, and the prospects are that by the time Governor Glenn has selected the four other men who will, with him, be entrusted with the momentous task of selecting the next place of meeting, every hamlet and cross-roads settlement in the South will be among the claimants. The President of the Parliament, indeed, has rich and almost unlimited material to draw upon to add to himself as the committee to frame an address on the needs, resources and opportunities of the South; for, 4000 Southern men, representing governors, mayors of cities, boards of trade, chambers of commerce, boards of health, railroads, manufacturers, farmers and a thousand other interests have requested that they be one of the four of the committee.

All apprehension that delegates to the Parliament will be held up to the extent of \$5 registration fee, payable in advance by check, etc., has been removed by the announcement that those behind the movement have a vast fund at their command sufficient to meet all the expenses of press agencies, etc. Up to date lists of 83,017 delegates have been received at headquarters, and the governors of at least four States have telegraphed that other lists are on the way. It is confidently expected that by the time of the assembling of the next Parliament the names of at least 213,000 delegates will have arrived representing every Southern State from the Susquehanna to the Rio Grande, and from the sluggish majesty of the Mississippi to the sun-kissed waters of the Gulf and the South Atlantic.

Most unusual interest is shown by the Southern press in the coming gathering. Ten thousand daily newspapers there have thrown open their columns for advance notices, and have contributed to a fund of \$25,000 to be given to the newspaper devoting most space to the movement during the next four months. Foreign journalism is also deeply concerned and will publish daily cablegrams of the proceedings. It is not betraying a confidence in stating that Josef Koscisko will represent the *Tageblatt* of Vienna, Dr. Poffenberger the *Berlin Anzeiger*, P. Tschavvz the *Norve Fremya* of St. Petersburg, Hon. James Bryce, M. P., the *London Times*, Admiral Nebogatoff the *Paris Temps*, the *South African Republic* and the *Greenland Ice Mountain*, and Sir Wilfred Laurier the *Glasgow Review*; in fact, the world has never seen such an assemblage of brilliant journalists and men of letters as that which will devote its pens to a minute detailing of the wonderful waiting power of the South in agriculture, manufacturing, mining, transportation, trade and commerce.

It is an open secret that foreknowledge of the significance of the next meeting of the Parliament was the factor determining President Roosevelt last February to make a tour through the South in the early fall, so that the weight of his great office might be given to the undertaking. He may, therefore, be expected to appear in person as the most honored and most welcome guest of the Parliament and to discuss at length the thousand questions which will be before it. It is understood, too, that addresses may be expected by Hon. Charles J. Bonaparte, the new Secretary of the Navy, on "The Reward of Civic Righteousness;" by his predecessor, Hon. Paul Morton, on "Rebates and Railroad Rate Regulation;" by Hon. James Wilson, Secretary of Agriculture, on "The Value of Government Statistics in a Bear Campaign in the Cotton Markets;" by Secretary Shaw of the Treasury Department on "The South's Interest in the Abolition of the Tariff on Raw Materials for Industry;" and by Wu Ting Fang, late Chinese Minister to the United States, on "The Connection Between the Government's Estimate of the Southern

Cotton Acreage and Rumors of a Chinese Boycott Against American Cotton Goods."

The Czar of Russia, it is understood, would be represented at the Parliament save that he is otherwise occupied and realizes, besides, that he can possibly do nothing to speed emigration from his empire to the South.

Though the cities of Southern Italy have, of course, not the least interest in the purposes of the Parliament or acquaintance with its "movers, embracing some of the foremost men of the nation," Italy deems the matter of such vital importance to the whole of civilization that a rapprochement of Church and State in that kingdom dawns in the promise that at the Parliament will appear, by person or by proxy, His Holiness Pope Pius X, His Majesty Victor Emmanuel III, Signor Adolpho Rossi, Italian Commissioner-General of Emigration; Baron Mayor des Planches, Italian Ambassador to the United States, and other experts upon Italians in America.

Additional information will be promptly furnished upon application to "Southern Industrial Parliament," Hotel des Invalides, Paris, France. Rooms \$3.50 a day, upwards and downwards.

CAUTION IN IMMIGRATION.

A dispatch from Washington says:

United States Consul Henry W. Diederich, whose post is at Bremen, Germany, has sent to the State Department an exhaustive report upon the condition of the emigrants passing through that port on their way to the United States. The Russians now flocking across the Atlantic, he says, are recruited from the lowest and most degraded of the Czar's unhappy subjects.

"Since I entered upon my present duties," he says, "I have seen 611,492 emigrants pass through Bremen, but official candor compels me to say that some of these Russian refugees belonged to a lower type than I had ever seen. As they are led through the streets of this city to the dock of the Argo Steamship Line, to be transported to England, it is a common remark heard on every hand, 'How can England and America receive such people?' Yet the Bremen population is hardened to such sights, the main streets of the city being daily thronged by emigrants of all nationalities on their way to other countries.

"Should the war continue, this rush of the fugitive Russians to our country will also continue, and I cannot help feeling that many of them are very undesirable. Unfortunately, our present immigration laws do not reach them. They impress one as being more or less physically and mentally degenerate, unable and unwilling to do any but the cheapest kind of work, and by overstocking the labor market they tend to reduce the standard of living of the American wage-worker and to increase the army of the unemployed and discontented, as there seems but little probability that such as these will be uplifted by our institutions and civilization."

This is only a confirmation of what is reported by every investigator of the immigration movement of the day. Immigrants are now coming at the rate of nearly a million a year, and, unlike the former times, the great bulk of present immigration consists of the very lowest classes of Europeans—of people less likely to be of value to the country than even Chinese. The latter would at least make good laborers, and that is what the whole country needs. In view of the character of immigrants now coming from Russia and elsewhere, the South should look with great disfavor upon the scheme to establish at Ellis Island government bureaus which would make

it possible to turn into the South the great stream of undesirable immigration. The South needs laborers, and it needs them badly, but while other sections are being aroused against so large a part of the immigration which is now flowing this way, we must not make the mistake of welcoming it and thus adding to our burdens. Of the better class of Italians, of Germans and Scandinavians we cannot have too many, but we must exercise some discrimination and prevent the South being made the dumping-ground of the vast hordes so well described by Consul Diederich in his report to Washington. There are movements under way which do not appear on the surface, and into which many good Southern men are innocently drawn, looking to the turning into the South of much of the most undesirable foreign immigration. Deeply interested as the MANUFACTURERS' RECORD is in seeing a vast increase in Southern population, we realize that at the moment exceeding care is needed. On the one hand we have the danger of a vast influx of the lowest classes, and on the other we have the danger of the labor organizations trying to prevent all immigration, because, according to their view, immigration lessens their control of the labor supply.

IRON AND STEEL IN THE NEXT FIFTY YEARS.

It was before the British Iron and Steel Institute in 1856, nearly 50 years ago, that the late Abram S. Hewitt made his forecast of the world's production and consumption of iron from that period up to 1910. The figures which he gave as indicating the possible increase in the iron trade were so staggering that Mr. Hewitt himself felt called to offer an apology for presenting a forecast which looked so impossible of fulfillment; but, as we all know, Mr. Hewitt's predictions have been more than realized. Once again before the same Institute a forecast has been made, and this time by Mr. R. A. Hadfield, elected at the annual meeting in May president to succeed Mr. Andrew Carnegie. Dealing with the development of the iron and steel trade of the world in the past, and looking to the future, Mr. Hadfield said:

The immediate past of metallurgy has been great indeed in the enormous productive power which has been created, especially during the last 25 years; but should the nations of the East develop needs for iron and steel—and there is every probability that they may during the present century—then outputs which now seem to us immense will pale into insignificance. An Anglo-Indian, competent to judge, told me recently that it cannot be long before India must have 100,000 miles of railway.

Supposing the whole population of the globe, now reckoned at over 1,500,000,000, or, say, even two-thirds of this number, eventually call for as much iron per head as is now used by each inhabitant of America and the United Kingdom, about 560 pounds per head, the demand would then rise to the figure of not far short of 300,000,000 tons per annum. This, too, does not take into account the increasing demand per head.

If the growth of universal demand spoken of take place, and there is every probability that it will, may not trouble then arise on account of the scarcity of ores? As there is no other equally useful metal in sight, husbanding of the world's resources will have to take place.

Although this may seem a resuscitation of the Jevons theory, but applied to iron, as it formerly was to coal, there must be good grounds for taking the view that, unless methods of economically working the vast sources of poor available ore are devised, at the end of the present century there will be an insufficiency of available iron ore, the seriousness of which it is difficult to estimate.

Referring to the available sources of raw material, Mr. Hadfield said:

If, however, the relative past ratio of in-

creased production of iron continues to the year 2000, at least 450,000,000 tons per annum of iron ore will be needed. Mr. J. S. Jeans, in an article on "The Problem of Iron Supply," has already shown that care will have to be exercised in the use of iron ores. Indeed, it can be easily imagined that in the dim but not far distant future mankind, instead of fighting for the possession of gold, will be striving for the possession of iron ore. * * * Approximately, as already stated, the inhabitants of the United Kingdom and of America each requires annually about one-quarter of a ton of iron, that is, 560 pounds per head. Germany is not far behind either of the above countries, its position in this respect having considerably increased in importance during the last few years. * * * Although it is impossible to see into the future, human affairs have "tendencies." The tendency now is largely to increase the use of iron, and unless some cataclysm arises this is bound to go on during the present century. Therefore one may intelligently surmise the extent to which the use of iron will increase. Accepting the figures given, it will be seen that this use will become greater and greater and probably on a scale that we today little dream of.

When it is borne in mind how rapidly production has risen, practically without a break of any kind since the year 1860, I see no reason to suppose that in the future a similar increase will not take place. If 50 years ago a prediction had been made that the present world's output would reach 50,000,000 tons per annum, as it has done, it would have been thought absurd. Therefore a probable production of close upon 100,000,000 tons in the year 1960 may not be much outside the mark. It must not be overlooked that fresh requirements for this metal are constantly being found; in fact, the increase in the use of iron is very much like the gathering of a snowball. If only two-thirds the present known population in the world used as much iron per inhabitant as in America and the United Kingdom, the production would require to be no less than the figure of 250,000,000 tons per annum of pig-iron even at the present day. As time goes on there must be an awakening to this demand for iron by the countless multitudes of human beings in the East, the inhabitants of our Indian Empire and the myriads of China. Increased use of iron naturally follows growth of population and greater wealth even in thoroughly civilized countries. The development of the metallurgical arts improves quality and reduces cost, so that with improved facilities a larger demand follows. New uses for iron spring up each year.

Let us look at the matter in another way. Supposing the world's consumption of iron per head to be the same as that of each inhabitant of the United Kingdom and of the United States, at the present rate only enough iron is made annually to meet the wants of about 200,000,000 people; but the world's population is nearly eight times this number, so that 1,400,000,000 of the globe's population do not get an ounce. If, therefore, the demand continues to increase in the same ratio as in the past, and even if we allow for only 1,000,000,000 of people being supplied, disregarding one-third of the world's population, then 250,000,000 tons must be made annually. At the present rate of increase by the end of this century a supply of 145,000,000 tons should be reached, and probably even this will be far from enough for the then human needs.

Discussing the question of an adequate supply of iron ore to meet such enormous world requirements of pig-iron, Mr. Hadfield said:

Dr. Carnegie in November, 1902, considered that if the amount of high-grade material in sight in the United States were placed at 1,000,000,000 tons, then, at the rate of consumption of 20,000,000 tons per year, the supply would be exhausted in the first half of the twentieth century. He also stated that the exhaustion of the then discovered high-grade ores within a few decades was little short of a certainty.

In the Mesabi district there is stated to be a proved supply of 500,000,000 tons, and on the four old ranges there are about 250,000,000 tons. On the other hand, Dr. D. W. Woodbridge, in an article on "The Mesabi and Baraboo Range," says that there is now a general consensus of opinion that the Mesabi is pretty well "found," that new discoveries will be few and far between, "and that newcomers will be sadly disappointed if they look for large beds of ore to be discovered by anyone who sticks a drill-hole into the ground." He points out that on the Mesabi there are more than 20,000 drill-holes stretching in unbroken succession to the Mississippi river. If much ore is left unfound, it will be most astonishing to those who have seen the skilled operations and the exact knowledge of local geological conditions with which

these holes have been put down. These conditions do not lead to the conclusion that other districts than those not known are in the forests and swamps of Northern Minnesota.

Mr. Hadfield has attempted to look a little farther ahead than the great majority of people are willing to forecast. Any man who studies the history of the iron development of the world is so staggered at its growth that, while he feels that progress beyond anything which we have ever known in the production and consumption of iron is as inevitable as is the rising of the sun, he hardly dares put down in plain figures any estimate of his conclusions as to what the next 25 or 50 years will bring forth. It is not more unreasonable to say that in 1915, or 10 years hence, the United States alone must of necessity produce at least 40,000,000 tons of iron than it was 10 years ago to have predicted an increase of 100 per cent. in our output at the present time, and yet when we contemplate what a production of 40,000,000 tons would mean in the drain upon our iron-ore resources, in the increase in railroad business and in the building of furnaces and steel works sufficient to practically double the entire iron and steel trade of the country, one naturally hesitates in predicting that it can or will be accomplished within 10 years, and yet the history of the past would give full justification for such a forecast. Mr. Hadfield, looking not simply to the production of any one country, but to the world, points out what may be the requirements of the next 50 years, and, impossible as his figures seem, they are not near so visionary or impossible of realization as were the estimates made 50 years ago before the British Iron and Steel Institute by Mr. Hewitt. It is of profound importance not only to the South, not only to the whole country, but to the world, that in the South is found a combination of advantages for ironmaking and possibilities of expansion in this industry such as are not known elsewhere. With these advantages the development of the iron and steel interests of the South and the wealth to be created therefrom present such dazzling possibilities as we have scarcely yet dreamed of.

TESTS WITH GASOLINE CARS.

Progressive railroad men are awaiting with interest the result of experiments with a gasoline motor car which are now being made by the Union Pacific Railroad. The vehicle, which was built at the shops of the company under the direction of Mr. W. R. McKeen, Jr., superintendent of motive power and machinery, in general appearance resembles a familiar type of large trolley car, but it runs on four wheels mounted in a long truck, the two pairs being widely separated, which perhaps in some degree accounts for its steadiness when in motion, even high speed falling to produce the teetering or galloping movement often observed in the use of certain varieties of trolley cars. The new car is propelled by an engine which is a modification of a gasoline motor that has proven highly successful in driving small vessels or launches, heretofore using other means of propulsion. Its speed is said to be practically without limit, although for service it is intended for an average rate of about 40 miles per hour. Just now it is making a tour of the United States, having started from Omaha for the Pacific coast, whence it will proceed eastward over a southern route and then up through the middle West, whence it will go to the northern At-

lantic coast and from there via Washington back to Omaha. Already it has met with such approval, according to press reports, that in at least one place a company has been organized to purchase and operate similar vehicles in suburban and interurban service for which electric cars are now generally employed.

This car, which was built for suburban work and also for use on branch lines requiring a limited passenger service, has proven, according to report, notably successful, not only as to rapidity and steadiness of motion, but as to an ability to ascend steep gradients easily and swiftly. The shape of the exterior is such that it offers the least possible resistance to the air, the forward end, which is furnished with a pilot or "cowcatcher," being tapered like the bow of a boat, while the roof resembles the inverted bottom of a racing yacht. There is also some tapering of the sides at the rear of the vehicle for the purpose, it is said, of preventing the creation of a vacuum and a consequent rush of air when high speeds are attained. The roof is almost wholly without projection, the only obstructions being several small hooded ventilators, which by suction keep the interior of the car constantly supplied with fresh air. Although this is but one of several types of railroad cars equipped with gasoline motors, its excellent qualities have made it conspicuous and its tests in actual service and during a very long tour are being watched with attention and much interest.

It was to be expected that the success of gasoline motors on automobiles would be followed by their application to other types of vehicles and in connection with railroads. For some time light cars for the use of railroad men in track inspection have been made with gasoline motive power, and step by step these motors have progressed in application in both passenger and freight service. Thus far their use in the latter variety of railroad work appears limited to employment by corporations demanding small locomotives for moving cars in and around industrial plants or for use on short private lines where the loads are small, while in passenger work they are hardly more than beginning to command notice and consideration, although another railroad company is reported to have ordered six gasoline motor cars for passenger use in and out of Chicago. But if the Hoadley-Knight engine that is being built for the Southern Pacific realizes everything that is claimed for it, the use of crude oil, with much greater economic success than seems to be possible with gasoline, will be attained, and consequently, the raw petroleum being cheaper, it may take the place of gasoline when some other motive power than steam is desired for railroad service. Whether either fluid will ever cause the complete abandonment of electricity for the various classes of railway motive power to which the latter is now applied is a question which none seem yet able to answer, but that either oil or gasoline will in some degree limit the use of electricity on railroads is apparently expected.

SELLING TO THE SOUTH.

Mr. George V. Denny, vice-president and manager of the Georgia Supply Co., in a letter to the MANUFACTURERS' RECORD referring to the criticisms made in times past that the South was largely a buyer of second-hand machine tools, says:

I have tried to give the machine-tool build-

ers a slight rap on that one subject. Because 20 years ago the South did buy second-hand machine tools is no reason why such is the case now, and I believe every manufacturer in the South is looking for the best machine tools they can buy. If the manufacturers would spend more money in advertising their goods and encouraging their agencies in the South, instead of spending so much in large salaries for New York and Philadelphia sales agencies, they might get better results, and then they would possibly have more business and less time for criticising the South. I firmly believe that this section of country is destined to be the commercial center of the United States, so far as manufacturing goes, as we have everything that any other section of the country has, except a surplus amount of money, and I hope that in a very few years we will have as much of that commodity as any other section of the country.

IN DEFENSE OF OGDENISM.

The "triumph of Ogdensism" at Columbia, S. C., in the last week of April was in such inverse proportion to the expectations of individuals and groups most interested in its success that the *State* of that city, its chief remaining apologist in the South, and mainly responsible for its strictly refined and family performance at Columbia, has been occupying much valuable space in its columns ever since, almost daily, with explanation and more or less befogging assertions bearing upon the matter. Of course, no charitably-disposed person can object to the *State's* attempting to vindicate its mistakes; for, really its clinging to the subject leads it now and then unwittingly to let in some light. For example, referring in its issue of June 3 to its violent and unjustifiable tirade against the Rev. William E. Hatcher of Richmond, Va., nearly two months ago, it says:

"The *State* produced the hottest expressions of Dr. Hatcher, declared them positively at variance with the record and the facts and challenged proof, which has never been offered. The fact that Dr. Hatcher is 'the foremost minister of the day in the Southern Baptist Church' does not affect our criticism, but when we read his first article in the *MANUFACTURERS' RECORD* we did not associate the writer with the venerable Dr. Hatcher of Richmond, whose years entitle him to respectful consideration from this paper, else the term 'disgruntled preacher' would not have been applied."

That paragraph indicates the value of the *State's* utterances upon any subject where there is opportunity for expression of the emotions of ignorance. It says that when it called the Rev. Dr. William E. Hatcher a "disgruntled preacher" it did not associate him with the "venerable Dr. Hatcher of Richmond." That confession indicates that either the *State* had not read Dr. Hatcher's article as originally published or that it did not realize who Dr. Hatcher was until it was very properly rebuked by the *Charleston News and Courier* for its solecism. That it did not know who Dr. Hatcher was was no reflection upon Dr. Hatcher. The *State* lives and learns. But the very article of Dr. Hatcher showed that he was of Richmond, Va. Another indication that the *State* had not read the article as carefully as a would-be critic should is that it charged Dr. Hatcher with a statement in the article that Dr. Hatcher had not made, and upon that charge based its additional charge that the statement was "a palpable and absurd untruth" and "a slander that should have no place in a Southern newspaper which has the opportunity of informing itself."

The *State* can hardly expect anybody to accept its challenge to prove things that he has not said. It ought not to ask others for proof of the products of its own excited imagination or its careless reading, and therefore its allusion last Saturday to the six or eight weeks' old Hatcher incident may only be taken as a sample of most of the stuff in defense

of Ogdensism which it has been erupting. In all kindness, however, it may be suggested that having discovered that it should not have applied the epithet "disgruntled preacher" to Dr. Hatcher, the *State* read Dr. Hatcher's article, and it will then discover that it contained no palpable untruth or slander.

BUILDING ACTIVITY IN THE SOUTH.

Evidencing the progress and general prosperity of these sections is the unusual building activity which every portion of the South and Southwest is experiencing at this time. In Memphis, Tenn., the building record gives the figures for May at \$371,000, as against \$288,282.50 for May, 1904, an increase of \$82,717.50. From figures compiled last year Memphis showed an increase in building operations over the previous year of 3 per cent., while, according to the present outlook, the increase of 1905 over 1904 will approximate 50 per cent. The report of the District of Columbia shows that during May permits were issued for apartment-houses aggregating nearly \$1,000,000 in value, while for the same period last year permits for the same class of buildings aggregated about \$70,000. In Kansas City, Mo., the May total was \$1,108,417, the value for May, 1904, being \$702,601, an increase of nearly 60 per cent.; during May of this year 469 permits for improvements, aggregating 10,020 front feet, were issued, against 393 permits, aggregating 5859 front feet, during May of last year. The May record in Birmingham, Ala., totals \$315,000 worth of building, against \$154,000 worth during May, 1904.

The above cities are cited to illustrate the remarkable increase which nearly every community throughout the South is experiencing in its building operations, and in the same connection it may be stated that advices from New Orleans announce that the lumber dealers of that district have decided to advance the price on all classes of stock, the revised prices becoming effective from June 1. The increase on some grades will be as much as \$4 or \$5 per thousand feet, although the extent of the advance has not been mentioned. The New Orleans lumber market advanced \$2 per thousand feet last March, and the present and heavier increase, following so closely on the last, has caused some concern among builders and those who contemplate building. It is stated that lumber is so scarce at this time in New Orleans that there is hardly enough to supply the market. This condition has been brought about by the demand for lumber for building operations, beside many millions of feet which have been shipped to Panama. Several railroads also are purchasing large quantities in connection with their building plans, notable among which is the Illinois Central Railroad, which is using a large amount for the rebuilding of its docks in New Orleans recently destroyed by fire. Dealers will not hazard an opinion as to how long the present advance will obtain, or if it will be necessary later on to make another, but state that mills are being worked overtime to supply the demand. The building boom has affected the New Orleans brick market also, and two railroads have purchased nearly the entire supply. One railroad has closed deals with 14 brick plants, buying their entire output for one year.

THE COTTON MOVEMENT.

During the first nine months of the present season, according to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, 12,263,445 bales of cotton were brought into sight, an increase over the same period last year of 2,578,748 bales. The exports were 7,628,571 bales, an increase of 1,933,764 bales. The takings were, by Northern spinners,

2,078,902 bales, an increase of 72,187 bales; by Southern spinners, 1,838,842 bales, an increase of 97,066 bales.

TURNED SOUTHWARD.

Mr. Fred A. Jacobs, proprietor of the Rambler Automobile Agency of San Francisco, in a letter to the *MANUFACTURERS' RECORD* referring to the purchase of a plantation near Richmond, Va., writes:

"I will go East about the first of July to put the residence in first-class condition. I think we will put in an electric-light plant, and probably a new system of plumbing throughout the building. We will also modernize the interior and bring it up to date in every particular. Just what will have to be done I cannot say, as I have never seen the place, having purchased it through the advice of a personal friend who lives nearby. I want to restore it and yet retain the old colonial features of the house. If you have the address of an architect who has had experience in the Southern colonial work I will thank you very much for his name."

We hear a great deal about the charms of California attracting people from the East. Here is a case in which the charms of the Old Dominion as a place of residence are bringing a California investor to that State as a home. The whole trend of men and money from all sections seems at last to have turned southward.

EXHIBITING KENTUCKY.

Kentucky's State commission to the World's Fair at St. Louis has made an elaborate report to Governor Beckham of the State's participation in the exhibit. The report is printed in pamphlet form, with numerous half-tone engravings of individuals who had a part in the work Kentucky did at the fair, of exhibits made by Kentucky in the various department buildings, of Kentucky's own beautiful State building, and the letter-press gives a very detailed description of what Kentucky did and by whom the work was done. In every respect Kentucky's appearance at the World's Fair was creditable to a degree. A great variety of her resources was adequately shown in the mineral exhibit of coal, stone, clays and oils. Her forestry exhibit was a remarkably complete and excellent one. Her tobacco exhibit was one of the features of the agricultural building. Her horticultural display was one of the best. The live-stock exhibit naturally carried away many blue ribbons, and in every respect the effort Kentucky made was creditable to the State. The published report is in keeping with the excellence and importance of the display.

SILK IN THE SOUTH.

An interesting experiment is being made in the South by a company of which Louis B. Magid is the moving spirit in the raising of silkworms and the manufacture of silk. Several thousand acres of land have been secured at and around Tallulah Falls, in Habersham county, Georgia. Extensive water-power is being developed at Tallulah Falls, and it is Mr. Magid's intention to found there an industrial center for wood-working, cotton-manufacturing and other industries suitable to that section.

Mr. Magid's main purpose, however, in establishing this industrial center is to create and foster an extensive silk-manufacturing industry in the United States. Mr. Magid has given many years of study to the matter of raising, manufacturing and marketing silk, and has carried his investigations into all parts of the world. He is thoroughly convinced that many portions of the South offer ideal conditions for the growth of the silkworm, and that the right kind of effort will bring about a great development in silk production. He contends that previous experiments along the line of silk-raising in this country have

not been scientifically conducted, and that the failures which have occurred furnish no real test of the possibilities here.

He is satisfied that silkworms may be most profitably raised by the women and children of the farmers' families in many sections of the United States, providing an additional income for them as well as furnishing the basis for the development of an industry which will be of great advantage to the country.

No one could be more enthusiastic on the subject than is Mr. Magid, and he and his associates are carrying on the work in a persistent and promising manner.

One of the features of their efforts is the publication of a magazine entitled *Silk*. It is devoted to the interests of the silk culturist and manufacturer, and is the official organ of the Silk Culturists' League of America. Published monthly at Tallulah Falls, Ga., it is filled with technical information on various features of silk-raising and manufacturing, and gives evidence of having already succeeded in arousing much general interest in the quite fascinating subject of silk culture.

SOUTHERN FARM MAGAZINE.

Individuals prone to speak of the good old times as better than the present should read Col. J. B. Killebrew's monthly talk with farmers in the June issue of the *Southern Farm Magazine*. He refers especially to Southern farmers, and for the benefit of those who sigh for the grand old days of the past he contrasts twentieth-century methods of planting, harvesting and haying and cultivation of corn and cotton, building fences and the marketing of crops with those of 50 years ago, dwells upon existing facilities for easy communication and upon improved school advantages, all for the purpose of drawing the moral that too much looking backward is likely to blind one to the blessings which he is enjoying. In the matter of years Colonel Killebrew is old enough to write from experience, both of the past and the present, in Southern agriculture. But in spite of his years, he is young enough to look around him with undimmed eyes and with a heart full of kindness and hope for his fellows.

His practical hints for the month fit in well with the discussion of divers practical topics of farm life in the department conducted by Prof. Andrew M. Soule of the Virginia Polytechnic Institute. Other features of the month's issue, in addition to the treatment of current events in the regular departments, are the paper by Harvie Jordan, president of the Southern Cotton Association, showing the intimate relation of cotton-growers and cotton manufacturers, diversified farming in the South from the standpoint of dealers in farm implements and machinery, the importance of using pure-bred corn for seed, cigar-leaf tobacco and the milk question in Southern cities.

The *Southern Farm Magazine* is published monthly by the Manufacturers' Record Publishing Co., Baltimore, Md. Price \$1 a year.

YAZOO CITY'S RECOVERY.

Fit illustration of the recovery of Yazoo City, Miss., from its fire of May 25, 1904, is the special anniversary edition of the *Yazoo Sentinel*, published one year later. It is a handsomely illustrated publication of 90 pages, full of valuable information about the city and its locality, its special industries and its farming interests, and making a work of reference useful for many years to come.

TAXATION AT WHEELING.

Mr. R. B. Naylor, secretary of the Wheeling (W. Va.) Board of Trade, writes to the *MANUFACTURERS' RECORD* that the rate of taxation in that city "for State and county purposes is \$1.03 per \$100, and

for the city 85 cents, making a total of \$1.88, which, I think, will compare most favorably with any other city in the Union."

DETERMINED FOR DALLAS.

In accordance with the ambitious determination of Dallas, Texas, to increase its present population of some 80,000 people to 150,000 by 1910, the One Hundred and Fifty Thousand Club of Dallas has gone extensively into the publication of books, pamphlets and circulars on the various features of the situation there and on the attractions which Texas in general, and Dallas in particular, offers to outsiders. This is in addition to a large fund raised for advertising Dallas and Texas in the newspapers and magazines of the United States. Recent publications testify to the artistic taste of the committee having the matter in charge, as well as to the vast enthusiasm of the people of Dallas.

COLONEL HESTER'S TASK.

The census office at Washington has been strengthened by the acceptance on the part of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, of the position of consulting statistical expert in the cotton division of the census. It is understood that the duties of this position will fortunately not interfere with the valuable weekly work and annual review of the cotton situation by Colonel Hester, but that his experience and accurate knowledge and excellent judgment will be available for the slower work of the census.

A TRUST WELL MAINTAINED.

Tribute Paid by a Federal Judge to Mr. T. G. Bush.

In closing up the affairs of the Southern Car & Foundry Co. to so much better advantage than had generally been anticipated would be possible, Mr. T. G. Bush, the receiver, made such an excellent record that Judge C. D. Clark, judge of the United States District Court for the Southern Division of the Eastern District of Tennessee, in his final decree paid to Mr. Bush the following high and well-deserved tribute:

"I hardly feel like closing the remarks made on this final ruling in this case of so much importance and magnitude without expressing appreciation of the services rendered by the active managing receiver, Mr. Bush.

"The situation found to deal with, and which practically has been managed by him, confessedly was a situation of the very greatest difficulty, viewed from any standpoint.

"I feel that the compensation allowed to him in the attempt to carry out the provisions of the bankruptcy act has been inadequate, in view of the exceptionally splendid management which he was able to give, and has given in good faith, to the administration of this bankrupt estate.

"As stated, the situation of the bankrupt concern presented almost every difficulty which a good manager and business financier ordinarily meet with in operating any business or in winding up the affairs of any important concern.

"This bankrupt estate and the unpromising condition of its assets have had a degree of business sagacity and wise management rarely met with, and the service of the managing receiver has been in the very highest degree satisfactory and successful, as the results abundantly testify.

"The very limited personal expense account turned in by the managing receiver referred to furnishes a striking lesson of economy and good faith towards a trust estate, when contrasted with the large personal account generally met with in similar situations, and this, with the prac-

tical, wise and judicious management of this large estate, combine to show a service the ability and good faith of which are too manifest not to be acknowledged."

TEXAS' GULF REGION.

Transformation Accompanying Development of Rice Culture.

[Special Cor. Manufacturers' Record.]

Galveston, Texas, June 3.

From a commercial standpoint no other section of the country has made greater strides during the past few years than the Gulf coast region of Texas, a statement easily justified, in view of the great industrial growth that has taken place across the 50 or 60-mile belt between the coast and timber line and stretching for a distance of several hundred miles along the Gulf coast. Thousands of acres of rich land given over 8 or 10 years ago exclusively to cattle grazing are now being made to produce almost every known article of agriculture; along the great trunk lines new towns are springing up; new lines of industry have necessitated the building of great rice and sugar mills, grain elevators, cotton compresses, oil refineries, etc., and the entire country is entering upon an era of prosperity which is destined to make it one of the most populous and prosperous sections of the Union.

Ninety-one counties constitute the coast region of Texas, and they have an aggregate population of about 750,000 persons. Thousands of immigrants are now coming in from Northern States, particularly from Illinois, Iowa, Ohio, Minnesota, while in the new industry of rice cultivation many Japanese are being brought in. Millions of dollars are being invested in farming land, and in the more favored sections land has increased within three years fully 300 per cent. in value.

The cultivation of rice on a commercial basis, while a comparatively new industry and as yet in its infancy, has grown to be probably the most important along the agricultural line in the coast country, and when the fact is considered that an investment in that industry, carefully managed, yields from 70 to 80 per cent. profit, it is not a matter of surprise that the cultivation of this cereal is taking a rapid hold on the farmers. It has been fully demonstrated by experience that the Texas coast country is highly adaptable to rice culture, and the matter of a proper water supply has been easily solved by long strings of canals and immense pumping plants. The canals are usually the property of companies which build the canals across the country, following the highest ground, and serve each farmer with enough water during the growing period to keep his cultivated land covered. The water supply is obtained from bayous and rivers, and in the building of canals and pumping plants many millions of dollars have been expended during the past five years. Of late not a few farmers have furnished their own water supply by drilling deep wells and using small pumping plants for their own use.

The estimated acreage of rice in Texas last year was 300,000 acres, which would produce on a conservative estimate 5,400,000 sacks, yielding at the prevailing selling price of \$3 per sack a total of \$16,200,000. While during the current season prices have been somewhat depressed by artificial conditions, the revenue, in view of the increased acreage, ought to be much greater.

In the principal rice-growing districts large towns have sprung up, and in the larger towns rice mills have been erected, while in the smaller towns elevators furnish a market for the product.

A fair example of the amazing developments following in the wake of rice culti-

vation is found in Bay City, the capital of Matagorda county, the principal rice-growing county on the coast. Three years ago the site of the present city of over 4000 inhabitants was a boundless prairie, with nothing but an occasional ranch house to interrupt the vision. At that time the Cane Belt Railway, a branch of the Santa Fe, was built into Matagorda county, and from that period the city has grown by leaps and bounds. Two of the finest and best-equipped rice mills in the South have been built there, each with a capacity of 1500 barrels daily. With rice fields stretching for 15 to 20 miles in any direction, both mills are worked to their full capacity and are meeting with great success. Bay City now has three railroads, giving an outlet to the East, North and West. Twelve or 15 canals have been constructed in all directions to water the thousands of acres of land under cultivation, and in the rice industry fully \$1,000,000 have been expended in the Bay City vicinity during the past year. What has taken place at Bay City within four years has occurred on a smaller scale wherever railroads have been built until on either side of Galveston for a distance of 80 to 100 miles the rice industry has grown to enormous proportions. There are now two large rice mills located here putting out 1400 and 1500 barrels daily, respectively, and the prospects are for additional mills. The exportation of rice is increasing rapidly.

The opportunities for the cultivation of early fruits and vegetables are great, and with good shipping facilities the development of these industries along the Gulf coast has been rapid. Shipments in carload lots are made through Houston and San Antonio to consumers in Northern States, and although developments are as yet in the initial stage, shipments this year aggregated hundreds of carloads. On the truck farms in the greater part of the Gulf coast region something may be grown every month in the year, and the majority of the vegetables may be successfully grown 10 months out of 12. The country is free from the extremes of temperature, the thermometer rarely registering below 30 degrees in winter or above 93 degrees in summer. Not only are the tender varieties of vegetables grown earlier in the spring than the seeds germinate further north, but they are also grown as late as November, and in some irrigated sections tomatoes, potatoes, cabbage, lettuce, radishes and other vegetables are in season as late as the first of December.

A new section of the coast which will be opened up for development is that along the St. Louis, Brownsville & Mexico Railway, which will be built into this place from the west by the first of next April. The region penetrated by this line just west of Galveston is regarded as containing the finest soil for the cultivation of onions in the country, and the opening up of that region will be of great importance in future developments along the coast. Not only onions, but almost every other variety of vegetable will be grown in that section, and the history of other regions opened up for development will be repeated.

The experiments conducted by the government of growing tobacco in Texas have been attended with the best results, and tobacco culture in the future will be carried on on a large scale in the coast country. The experiments have been conducted at Nacogdoches, just north of Beaumont, about 100 miles east of here, and tests have demonstrated that the best grades of Cuban tobacco may be grown as successfully in the soil of lower Texas as in Cuba. Since these tests were successful tobacco-growing has already been started on a small scale, and a company

has just been organized here for the handling of Texas tobacco. W. S. HUDSON.

TEXAS-LOUISIANA PIPE LINES.

At Least \$1,250,000 to Be Invested in Them This Year.

[Special Cor. Manufacturers' Record.]

Beaumont, Texas, June 3.

The first shipment of Jennings oil via the Carnes, Bass & Benckenstein pipe line and the Atchafalaya river was delivered to tanks at Plaquemine, La., on the Mississippi river, on Saturday, May 27. This marks the opening of a new outlet for the crude product of the Jennings field and a new market for fuel oil in the cities and plantations along the Mississippi river.

The pipe line as completed is 54 miles long, extending from the Jennings oil field through the cities of Rayne, Lafayette and Breaux Bridge and under the historic Bayou Teche to the Atchafalaya river. Pump stations for forcing the oil through the line are located at the oil field, at Rayne and at Lafayette. Additional stations will be put in to increase the capacity of the line to approximately 9000 barrels a day. At present it is capable of moving 6000 barrels a day. Barges convey the oil from the end of the pipe line a distance of 30 miles to Devil's Elbow, near Plaquemine. Two 55,000-barrel steel storage tanks have been erected at Plaquemine. The oil will be run from these into barges on the Mississippi, and thence to New Orleans, Baton Rouge, Memphis, Natchez and other cities and points on the lower river. The Carnes, Bass & Benckenstein line is the first of any length to be built in Louisiana. With the equipment used in connection with it the line represents an investment of \$250,000 to \$300,000.

At present there is under construction in the Southeast Texas region more than 100 miles of six-inch pipe line, representing an outlay of \$500,000 to \$600,000. Fifty-two miles of main line, six inches in diameter, already has been completed this year at a cost exceeding \$250,000.

The completion of all the lines now under construction or to be started shortly, including the Rio Bravo Oil Co.'s (Southern Pacific Railroad's fuel oil producing and purchasing corporation) eight-inch line from Saratoga to Sour Lake, a distance of over 10 miles, will represent the laying of a total of 205 miles of pipe line in Southeast Texas this year. The expense of this work will be at least \$1,000,000, including right of way and pump stations. Add to this the Jennings-Atchafalaya line in Louisiana and total outlay will be not less than \$1,250,000 for pipe lines in the Texas-Louisiana oil country in 1905, with the prospect of additional mileage whenever new fields are opened up. In the figures given no account is taken of the several miles of gathering lines laid at Humble. Only main lines are considered.

The Texas-Louisiana districts produced 4,639,000 barrels of oil in May, nevertheless wildcatting for new pools continues with increasing interest. Fully 2,000,000 barrels of oil went into storage—being the surplus above current demands and consumption—last month in the Texas-Louisiana districts. Prices are low—20 to 30 cents on cars at Humble and Jennings for fuel purposes and 45 to 55 cents on board vessels at Port Arthur and Sabine—making it desirable for fuel consumers to accumulate a large reserve supply, and many of them are doing this. With the certain prospect of new discoveries, however, it seems that the present market will hold for some time to come.

Shipments by barge and tank steamer from Port Arthur and Sabine to foreign and domestic ports in May amounted to 847,782 barrels of crude and 222,238 barrels of refinery products, or a total of 1,070,020 barrels. The rail shipments to

fuel consumers in May amounted to 3472 cars, or 823,762 barrels. The shipments from Jennings during May—all by rail over the Southern Pacific—amounted to 2441 cars, or 546,339 barrels. The total daily average movement of Texas and Louisiana crude in May was 71,545 barrels. Adding refinery consumption and field consumption to the rail and port movement brings the total movement and consumption of Texas-Louisiana crude in May to 2,717,883 barrels, or at the rate of more than 32,000,000 barrels a year.

HOLLAND S. REAVIS.

Kentucky-Tennessee Oil Fields.

[Special Cor. Manufacturers' Record.]
Barbourville, Ky., June 6.

Three big oil strikes in as many sections of the Kentucky oil field the latter part of May have served to greatly revive interest in the various divisions of the field, and this week many new wells were commenced. During the last week in May a strike was made in Cumberland county which produced 300 barrels daily, one in Wayne county which did 175 barrels, and in the deep-sand field of upper Kentucky a strike in Wolfe county did 60 barrels daily. Coming at a time when the continued reductions in the price of crude oil were beginning to make themselves felt in reducing the scope of activity, the completions of large capacity were made at an opportune time.

As a result of these and other strikes of extra large caliber the production of crude in the Kentucky-Tennessee developments during May aggregated several thousand barrels more than that of the preceding month.

Activity now is centered in the counties of Wayne, Cumberland and Wolfe in this State, and in Pickett and Fentress counties, Tennessee. Last month Wayne county turned out 22 strikes and six dusters, two of the strikes being in the 100-barrel class, while the Cumberland division furnished four strikes, one doing 275 barrels. Six strikes were made in Wolfe county. A great deal of new capital entered these fields last month. In Wayne county local operators have let contracts for the drilling of a number of wells.

W. S. HUDSON.

GUILD'S GEORGIA CAMPAIGN.

His Labor Agitation Argument Disputed by Mr. F. B. Gordon.

Mr. Frederick B. Gordon of Columbus, Ga., president of the Georgia Industrial Association, writes to the MANUFACTURERS' RECORD as follows:

"I have read with keen interest the editorial 'Cotton-Mill Interests' in your issue of May 25, 1905, especially your allusion to the agitation being led by Lieutenant-Governor Curtis Guild, Jr., of Massachusetts. In a speech delivered by him on the 15th inst. before the Evangelical Alliance at Park Street Church, Boston, he made the following statement:

"In 20 years the labor cost per spindle has increased in New England from \$3.73 to \$4.31, in spite of the constant improvements in machinery. The labor cost of the South, with the benefit of the same improvement, has decreased from \$5.08 to \$4.07."

"In my judgment, the argument is not sound, from the fact that the greater ratio of use of late improvements in machinery (especially looms) in the South accounts for the average reduction in cost per spindle of labor, while the lack of this introduction in New England accounts for the increase of labor cost there.

"Mr. Guild states that cost per spindle in the South is now \$4.07, while it is only \$4.31 in New England, where, of course, the average yarn is much finer. If the average number of yarn of each section could be ascertained, it seems to me very

probable (if Mr. Guild's figures are correct) that practically no difference could be shown in labor cost in comparing the two sections. Therefore, why this contention that the South has a great advantage from 'child labor' and longer hours?

"It is well known to Southern manufacturers that a smaller wage scale is the least advantage they hold over New England, the principal advantage being the proximity to the cotton fields. If Mr. Guild will take the figures he uses, the average number of yarn produced and the average cost of living of each section, he may be surprised to find that the Southern operative receives a better net average wage than the New England mill employee."

MARKET ON THE QUI VIVE.

New Price for Iron at Birmingham Expected This Month.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., June 5.

In the way of improved market conditions there is a small beginning, for there was a little increase in demand for iron and inquiry was somewhat increased. Some sellers have declined to accept a basis below \$13 for No. 2 foundry, and it is strongly suspected that some have accepted orders on a basis as low as \$12.50 for No. 2 foundry. If they did, they are withholding the fact. There was one sale of 500 tons for account of another district on the basis of \$12.10 Birmingham. It is probable that this sale will be heralded as regular grade and used to depress market. So it is well to give the facts. This lot was irregular and below the requirements of regular grade. To the seller and to the buyer it was analysis iron, and was sold on analysis. As to grade, the information to your correspondent is that it would not pass above No. 3 foundry. There was a report of a sale of 400 tons of gray forge at \$11.50, but the seller of the lot told your correspondent it was only 100 tons that had accumulated and was sold in pursuance of a policy to keep the yard cleaned of low grades. There was sold some small lots of No. 3 foundry at \$12.25, less commissions. There was also business concluded on the basis of \$13, \$13.25 and of \$13.50 for No. 2 foundry. There were some buyers who wanted favorite makes, and for their choice they were willing to pay, and did pay, a premium over what they could have done. There were others who were satisfied to get the grade, and in some instances they captured low prices. A large corporation was in the market for an insignificant amount, the grade wanted being No. 1 soft. They gave all a bite at the order and landed it at \$13. The orders reported as accepted were of the same retail character that has characterized the market of late. But your correspondent strongly suspects sales whose mention is being withheld. The policy of urging deliveries now of purchases not maturing in some cases until August and September is still being pursued, and, as far as sellers can do so, such requests are being granted. As yet buyers are not replacing the amounts now being taken by further purchases. They are still playing the "stand-pat" game. There were a few lots sold by analysis, but the prices obtained are kept so far "under the rose." The market is now on the qui vive, for before the end of the month a new price will be named for iron. It won't stay at existing price. Quotations for basic iron are about the same as No. 2 foundry, and orders are so freely booked for the steel that can be made this year that new business is refused the glad hand.

Business in scrap is moderate, and while quotations are as yet unchanged, the market can be called easy.

There is a little more firmness in coke than was quoted last week. Some of the coke companies in Southwest Virginia

have been free sellers of late, and those of our industries that depended upon them for part of their coke supply are now asked an advance that raises the minimum price to \$3.75. The talk is \$4, and it is probable that these figures will rule for awhile, anyway. The amount of the district coke offering just now is not sufficient to satisfy the demand. Foundry coke has, of course, made the same advance as furnace coke. There are still some developments being pushed in coal properties, and it is noted that the Sloss Company has commenced the development of its coal property at Palos, in this county. It is now driving in a slope that is 21 feet wide that will tap an eight-foot vein whose quality as a coking coal will compare with any in the district. When straightened out it expects its output to be 2000 tons per day, and will convert it into coke at the ovens at North Birmingham. The Sloss Company is now having an output of about 65 per cent. of normal capacity, and is adding to this right along, and has every confidence in its ability to soon turn out its full normal output.

An important deal was concluded the past week between the Bessemer Coal, Iron & Land Co. and the Wind Rock Coal Co., situated near Knoxville, in East Tennessee. The former acquired from the latter all its coal properties, say 2500 acres, together with its leases and all its holdings, including improvements of all kinds. The consideration is reported as being \$150,000. The property is situated on the Cow Creek branch of the L. & N. R. R. At present the daily output is 300 tons, which amount will be increased at once to 1000 tons. In some quarters the deal is interpreted to mean that the soft things in this district are pretty well coraled in the way of coal properties, or this deal would not have been concluded.

Great activity is noticeable in the affairs of the Birmingham Railway & Electric Light Co. At the Bessemer end it has commenced work on the viaduct, which will greatly lessen liability to accidents and also shorten the schedule time between the two places. It is installing a mechanical stoker at the power-house. To these improvements will be added the erection of a new gasometer. The extension of the system to include fresh territory and add to the accessibility of the outlying settlements is in contemplation and is under consideration. The report of the committee as to the feasibility of securing a plentiful supply of water confirms the assertion that we will get no gravity water. To increase the water supply means pumps and a water-tower station. A pipe line can be run from the station to the industries at Bessemer, Ensley, etc., without being forced to tunnel. It is premature to say aught of the enterprise yet other than we are compelled to have it. It is coming in due season.

Among the incorporations the past week were the Alabama Paper & Printing Co., capitalized at \$15,000, with headquarters here, and the Afro-American Land Co., capitalized at \$10,000, with headquarters at Bessemer.

J. M. K.

To Develop Coal Mines.

The Kerrville Coal, Oil & Inspecting Co. of Covington, Tenn., organized several months ago, is making preparations for active work in Tipton county. Geologists have submitted favorable reports on samples of coal and seep oil from the bluffs near Quito, while experts who have examined the grounds believe that coal and oil will be found in paying quantities. The company has secured leases on lands of J. N. Harris, W. S. Hornsby, J. W. Willey and others, aggregating more than 10,000 acres. A prospecting outfit consisting of an oil drill of 2000 feet capacity has been ordered, and work will begin as

soon as machinery arrives. Mr. Park is the president of the company; Dr. W. M. Bingham, treasurer; Felix Bejack, secretary.

THE BIRMINGHAM DISTRICT.

An Illustration of Its Opportunities in Industry.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., June 5.

Scattered around over the South are a number of industries, unimportant in the value of their products and scope of operations in comparison with the extensive cotton manufactories, saw and planing mills and the big furnaces and rolling mills, etc., but which are exceedingly interesting as a demonstration of the diversity of industrial activity now on, as containing promise of future growth, and as demonstrating the variety of activities which may be profitably undertaken in this section.

A case in point is furnished by the White-Blakeslee Manufacturing Co., which is located in the beautiful Birmingham suburb of Woodlawn, and which, besides manufacturing gas and gasoline engines, is very extensively engaged in the manufacture of veneer-cutting machinery. Originally known as the DuQuoin Iron Works, located in DuQuoin, Ill., where for some 30 years a specialty was made of veneer-cutting machinery, the institution was removed to the present location six years ago, when a company with \$30,000 capital was organized in the name of the Blakeslee Company. No bonus was asked for, the plant being located here purely as a business proposition, the desire being to get closer to the iron district. No help of any sort and no subscription to capital was demanded, but so successful were the operations of the company from the very start that two years ago a reorganization occurred and the White-Blakeslee Manufacturing Co. came into existence with \$200,000 capital. In this new company considerable local capital has been subscribed, simply because the investment appealed to the business sense of those who made the subscription.

In the old company G. F. Blakeslee was president. He has since retired, and C. B. White, formerly secretary and treasurer, is now president, and a number of local men have been chosen as other officers of the company, namely, James Bowron, vice-president; R. E. Lockett, treasurer, and S. B. Scully, secretary. G. C. Van Keuren, superintendent of the Blakeslee Company, is still retained in the same capacity.

Since coming to Birmingham the gas and gasoline engine construction has been made the principal business of the institution. The capacity of the plant has been recently doubled, and now from 600 to 800 engines are manufactured every year. These engines range from 2½ to 25 horse-power, and are used by farmers, printers, mine operators, small machine shops and small electric-light plants. The features of these engines are simplicity in design and throttling governor. The governor is of fly-ball pattern, and operates without the aid of springs. Being operated at a moderately high speed, it is very sensitive, and serves to keep the variation of speed within very narrow limits. The igniter mechanism is also very simple. It requires very little current, and will run for several months without attention.

In veneer-making machinery the White-Blakeslee Manufacturing Co. is one of the most successful and eminent institutions of its kind in the country. The variety of the product of these machines is one of their remarkable features. Being very heavily constructed, they can cut a three-quarter-inch strip, or machines may be adjusted so that they can peel off a sheet of the thinness of paper, so thin

that it would require 120 strips to make the thickness of an inch. These machines have been sold all over the United States, and they have even gone to foreign countries. Six shipments have been made to Belgium, and they have gone to Canada, Cuba, Mexico and Australia. The main business has, however, been in the South. No export business has ever been solicited, and whenever orders have come from abroad they have been entirely voluntary. The company is kept busy with local business, and it is likewise unsolicited almost entirely.

The Globe-Wernicke Company of Cincinnati has several of these machines, and the Singer Sewing Machine Co. of Cairo, Ill., some time ago bought eight machines and ordered five more, two to go to Cairo and three to Canada.

They have been taken by furniture, box and crate manufacturers, barrel heading makers, stave manufacturers and by makers of berry boxes and vegetable crates of all descriptions. Three or four hundred of the machines are in use today all over the country, especially in the South.

This is the only manufacturer of veneer-cutting machinery south of the Ohio river except one in Petersburg, Va.

The output of engines and veneer-cutting machines made by this company foots up a value of about \$150,000 per year. Eighty to 100 hands are employed, most of whom are skilled mechanics, and nearly all of whom have been with the company for several years. There is no trouble whatever in getting skilled help, and, indeed, at the present time skilled mechanics are coming into Birmingham from all over the country; in addition to local workmen who are being trained to a satisfactory degree of efficiency and skill. And conditions of living here are naturally becoming more desirable all the time. The wages paid to skilled workmen here average from \$3 to \$3.50 per day.

As illustrating the advantage to the district which such institutions as this constitutes, it may be mentioned that the product of this house represents a value of iron per ton of from \$300 to \$500.

The company has no cupola, but satisfactory rates are obtained on castings done in the district. This situation, however, does not apply to drop forgings and steel castings. Drop forgings are not to be obtained anywhere in the South, and the small steel castings are mainly got from Philadelphia.

Another indication of the inequality of industrial development here is furnished by the fact that the company also has to go out of the district for the woodwork portion of the various machines it manufactures.

While mainly devoted to engines and veneer-cutting machinery, other lines of manufacturing are also included, such as stationary, portable and pumping rigs and electrical supplies, and it is the intention of the company to work into the manufacture of automobiles, all of which indicates development of a most interesting and desirable sort.

ALBERT PHENIS.

Big Power Plant for Chattanooga.

For some years there has been discussion of the possibilities of the water-power of the Tennessee river near Chattanooga, and it is now announced by Messrs. C. E. James and J. C. Guild of that city that the financial arrangements for developing that power have been completed. For this purpose the Chattanooga-Tennessee River Power Co. has been incorporated, with a capital stock of \$3,000,000, and it is understood that the funds will be furnished largely by New York capitalists. The company proposes to begin construction work within 60 days, and it is stated that the electric plant to be erected will supply about 30,000 horse-power for all kinds of

industrial enterprises. The necessary lock and dam will cost, it is estimated, some \$1,180,000, and the work is to be done after plans and specifications furnished by the United States government engineers. The dam will be of cement, 57 feet at the base, 9 feet at the top, 35 feet high, erected where the river is 1250 feet wide. The power-house will be 57 feet high, 60x300 feet in size. Thirty-six turbines will furnish power to the 12 motors, which latter will be built to order. The government will furnish the gates for the lock, the cost to be \$150,000. All the work involved in this great project is a part of the government plan for the general improvement of the Tennessee river, and will be done under the direction of government engineers. The privilege of building this power plant was first granted to the city of Chattanooga, and that municipality failing to avail itself of the privilege, they reverted to Messrs. James and Guild and their associates. The establishment of this great plant will doubtless result greatly to the advantage of Chattanooga as a location for industrial enterprises, cheapening the cost of operating the plants already in existence and leading to the location of important new industries. The power company has already received propositions for three large manufacturing establishments which will use 4000 horse-power. One of these is a cement works to have a daily capacity of 2000 barrels. Another is a big machinery plant.

BON AIR COAL AND IRON.

Results of Consolidation of Important Properties Two Years Ago.

Editor *Manufacturers' Record*:

The consolidation on July 1, 1902, of the Bon Air Coal, Land & Lumber Co. and the Buffalo Iron Co. is a marked event in the industrial history and development of the South. The two original companies mentioned were each in its line of great merit, but the fusing of the two into one, called the Bon Air Coal & Iron Co., added immensely to the separate values of the original properties. The property is operated in two divisions:

1. The Bon Air Coal property.
2. The Buffalo Iron division.

It would be a difficult task to find a coal property in the South, or, for that matter, a bituminous coal property in any other part of the United States that has a brighter outlook before it than this. Embracing an area of 40,000 acres, the coal lands attached to the consolidated properties have their chief value in the underlying coal seams and in the timber. There are two coal seams on this property, viz.: The Bon Air seam and the Eastland seam. The first belongs to what is known as the lower coal measures; that is, the coal measures that lie below the great capstone of the Cumberland mountains. This capstone is a conglomerate sandstone, and averages in thickness about 70 feet. The Bon Air seam varies in thickness from 42 to 48 inches. The coal of this seam is unsurpassed as a grate coal, and commands a high price for that purpose. It is rather dull in color, hard, compact, heavy, and bears stocking well. It is easily kindled, and burns with readiness and brilliancy. When exposed to the disintegrating influences of the weather it rarely slacks. It is regarded as the most valuable seam of coal in Tennessee, and that it is valuable may be inferred from the fact that the Bon Air coal mines, worked for the past 25 years, have always paid a handsome dividend to its stockholders; in fact, the ever-increasing demand for this coal was so great and so constant that another opening was made in the same seam at Ravenscroft, seven miles from the original Bon Air mines. The seam at this place is 60 inches thick, and is operated by means

of a shaft 170 feet in depth. None of this coal is coked, but nearly all is sold for domestic purposes except what is consumed by the railroads.

The Eastland seam overlies the Bon Air seam, and is the equivalent of the Sewanee seam, which has been worked so long at Tracy City. This furnishes the best coking coal in the State. This seam has been opened at Eastland, seven miles from Ravenscroft and 14 miles from Bon Air. This seam occurs in the upper coal measures; that is to say, upon the elevations lying above the great conglomerate sandstone heretofore mentioned.

The company is arranging to mine this coking coal extensively, and within two months 200 coke ovens will be finished and ready to go into operation at Eastland for converting this coal into coke. The output will be used in the company's furnaces at Mannie. This Eastland seam is from 42 to 60 inches in thickness. The coal is soft and spumous, and is readily mined like the Connellsville coal in Pennsylvania with pick and shovel. Analyses show that the coal from the Eastland seam contains from 10 to 12 per cent. of ash and about 1 per cent. of sulphur. The coal will be thoroughly washed before it is coked, and the quality of the coke will be superior for the making of pig-iron.

The Bon Air seam underlies the whole of the 40,000 acres owned by the company in White, Cumberland, Putnam and Van Buren counties, with the exception of that portion traversed by streams and ravines, where the coal is cut out by the erosive action of water. This will scarcely diminish the area of coal more than 1500 acres. The Eastland seam is included in only about 8000 acres, and is found only in the ridges and hills rising above the general surface of the mountains.

The analysis of the Bon Air coal is as follows:

Moisture.....	1.86
Volatile matter.....	28.67
Fixed carbon.....	64.54
Ash.....	4.93
	100.00
Sulphur.....	.85

It will be seen that this coal is very high in fixed carbon and low in ash, which makes it of singular excellence; in fact, very few coals in the United States show a better analysis and is more highly esteemed as a fuel coal.

The Buffalo river or iron division consists of 75,000 acres of land in Dickson, Hickman, Lewis, Wayne and Lawrence counties, Tennessee, and lies southwest of Nashville in what is known as the great western iron belt of Tennessee. Throughout this whole area beds of limonite or brown hematite, called by the chemists the hydrated oxide of iron, occur at intervals. The ores are found associated with red clay and with angular flinty masses called chert, which in the process of ages have been liberated from the limestones and form now the silicious part of the subcarboniferous age. The ores are usually found upon the rolling crests and slopes of the hills, but more rarely upon the level plateaus. Some of these beds of ore are quite thick, and of the material in the beds often one-half of the volume is iron ore. One of these beds on the property under consideration yielded 100,000 tons of ore from less than one acre. It is estimated, after a pretty thorough survey, that 10,000,000 tons of merchantable iron ores are within easy reach of the furnaces belonging to this company. Typical analyses of these ores, after being washed and picked, show metallic iron 48 to 52 per cent.

Sulphur is rarely found in any of the iron ores of this belt. In actual work the ores yield from the furnace 50 per cent. of pig-iron.

Two furnaces, each of 100 tons daily capacity, belong to the property. They are situated at Mannie, in Wayne county, Ten-

nessee, on Allen's creek, about 65 miles southwest of Nashville as the crow flies. These furnaces are well equipped with modern blowing engines, hot-blast stoves and machinery of the highest efficiency. There are two complete plants for washing ores, each having a capacity of 500 tons per day. The ores are usually mined during the dry seasons, washed and dressed and stored away. Very little iron-ore mining is done in winter or in wet weather. From the furnaces the company operates three miles of railroad, using its own engines for transporting the ores from the washers to the furnaces.

The character of the pig-iron sought to be made is known in the trade as "Mannie Softener." It has a large content of phosphorus and silicon, and is in demand for all castings where smoothness of surface and fineness of lines are required. In the casting of many parts of harvesting machinery, radiators, statuary and ornamental and monumental work where a highly fluid iron is required, about 20 per cent. of the phosphorous iron such as is made in the Mannie furnaces is very necessary for attaining the style and finish demanded for such work.

The following is an analysis of the phosphorous iron made at Mannie:

Silicon.....	from 1.50 to 8 per cent.
Sulphur.....	.001 to .05 per cent.
Phosphorus.....	1.80 to 2.25 per cent.
Manganese.....	.40 to .60 per cent.

It may be mentioned that a trace of manganese is found in nearly all the iron ores that occur in the western iron belt of Tennessee, where the company's iron property is situated.

There is another valuable resource belonging to the property in the large amount of timber which it has. Of the 115,000 acres held by the company in its coal and iron properties, 100,000 acres have more or less timber trees growing on them. In the coal region white oak, chestnut, short-leaf pine, black gum, red oak and hickory abound, and some poplar on the sides of the gorges occur. In the iron district poplar, white oak, hickory and red oak are the prevailing arboreal growth. The increasing value of timber is making this feature of the property of no inconsiderable interest to the stockholders.

The company owns three towns, viz., Bon Air, Ravenscroft and Eastland, containing from 1500 to 2500 people each. There are good schools and churches in these towns, both well attended. There are stores to supply goods and groceries, and about 600 dwelling-houses for the operatives. The company is capitalized at \$5,000,000, one-half each of common and preferred stock. Of the preferred stock, \$1,876,057.67 have been issued, and the same amount of common stock. The remainder is held in the treasury of the company. The total amount of bonds of the original and consolidated companies is \$747,832.91, of which \$346,000 is on the consolidated company.

In conclusion, it may be said that the affairs of the company are under the management of some of the most successful business men of the South. Though chartered in Maine, it is practically a Tennessee company managed by citizens of Tennessee who were to the "manner born."

J. B. KILLERBEW.

Port Bolivar.

Mr. Lewis L. Featherstone, secretary of the Gulf & Interstate Railway Co. of Texas, writes from Beaumont to the *MANUFACTURERS' RECORD* that his company, which is the owner of considerable water-front at Port Bolivar, Texas, is constructing wall and other facilities for the economic handling of the export business. The national government is making a survey for proposed government improvements. Mr. Featherstone's company has propositions from a compress company for

the erection of a cotton compress, and is negotiating for the construction of a grain elevator.

Southern Shoe Wholesalers.

The Southern Shoe Wholesalers' Association will go far afield for its seventh annual meeting this year. It is to be held July 14-15 at the Atlantic House, Nantasket Beach, Mass., and among the discussions will be "The Future of Shoe Manufacturing in the South," by George D. Witt of the George D. Witt Shoe Co., Lynchburg; H. C. Yerkes of Goodbar & Co., Memphis, Tenn., and E. Rosenberg of E. Rosenberg & Sons, New Orleans, La.; "Correction of Abuses of the Trade by an Educational Campaign," by J. K. Orr of the J. K. Orr Shoe Co., Atlanta, Ga., and Frank Payne, Charleston, W. Va.; "The Benefits of Organization," by B. F. McLeod of the Drake-Innes-Green Shoe Co., Charleston, S. C.; D. J. Rosenheim of Joseph Rosenheim & Sons, Savannah, Ga., and E. E. McMillan of McMillan, Hazen & Co., Knoxville, Tenn.; "Possibility of Eliminating Dating Without Seriously Curtailing Volume," by W. H. Miles of the W. H. Miles Shoe Co., Richmond, Va.; Joseph Lindauer of Herman Bros., Lindauer & Co., Nashville, Tenn., and R. A. Carrington of the Lynchburg (Va.) Shoe Co.; "The Tariff Duty on Hides and the Shoe Business," by Charles McCarthy of Dunn & McCarthy, Auburn, N. Y., and Charles J. Jones of the Commonwealth Shoe & Leather Co., Boston, Mass.; "The National Association of Shoe Wholesalers," by President Daniel P. Morse of New York; "The Credit Clearing-House Service," by Vice-President H. A. Wheeler of the Credit Clearing-House, Chicago; "The Rubber Contract for 1906," "Lower Transportation Charges on Shoes in Southern Territory," "The Inclusion of Maryland and Virginia in the Association," "The Advantages of the Association," and "Resources and Future Developments of the South."

The general officers of the association are: President, M. D. Arnold, Knoxville, Tenn.; vice-presidents, W. H. Miles, Richmond, Va.; J. B. Richardson, Nashville, Tenn.; M. J. Streng, Louisville, Ky., and E. K. Marshall, Charleston, S. C.; secretary-treasurer, John H. DeWitt, Nashville, Tenn., and chairman of the executive committee, J. K. Orr, Atlanta, Ga. The members of the association represent Atlanta, Ga.; Columbus, Ga.; Charleston, W. Va.; Knoxville, Tenn.; Louisville, Ky.; Lynchburg, Va.; Memphis, Tenn.; Montgomery, Ala.; Nashville, Tenn.; New Orleans, La.; Petersburg, Va.; Richmond, Va.; Wilmington, N. C.; Savannah, Ga., and Charleston, S. C.

For Nashville.

Mr. Lewis T. Baxter of Nashville, Tenn., is a frequent contributor to the press of that city in advocacy of the full development of it and its contiguous territory. In a recent issue of the Nashville *American* he said:

"It is a source of great satisfaction to Southern men who have the best interests of their section at heart, and who have for years labored to make known to the outside world and to their less observing neighbors the great natural riches of the South, and especially of the mineral and timber belt, to know that their labors have not been in vain, but that the reading people all over the United States have become convinced that the South today is a land of magnificent opportunities and has more to attract capital and intelligent labor than any other section on the globe. It is because of this knowledge that immigration and new capital are coming into the South so rapidly at present, and that so much more of both is preparing to come."

"This fact accounts for the greatly-

increased railway mileage, for the opening for so many new mines, the erection of hundreds of new mills and manufactories, the building of furnaces, the unprecedented growth of our cities and the influx of farmers from less favored localities. The development of the territory around Nashville has all this back of it and much more, and consequently the unusual activity in and around this city is not ephemeral; on the contrary, it should grow in force and volume as the movement southward increases, as it is daily doing. The old conditions have passed, never to return, and with the increasing growth of our country the growth in the South should not only keep pace, but stay in the lead.

"If the central South is to grow in population and wealth very rapidly, as now seems assured, how can this development go on and the favored cities of the South not receive some of the benefits? If the great natural resources within 100 miles of Nashville are to be developed as fast as capital and labor can accomplish results; if our ore is to be turned into iron and steel, our forests into lumber, furniture and various wooden wares; if our phosphate rock is to be made into commercial fertilizers; if our oil deposits are to be raised and given to the commerce of the world; if our water-powers are to be harnessed and thousands of spindles and wheels are to be operated by the electricity produced by them, and if our fertile soils are to be cultivated by thousands of intelligent farmers from other States, in connection with those already here, how is it possible for Nashville to remain its present size and not feel the effects of so great a development?"

Southern Tin Co.

The Southern Tin Co. of Gastonia, N. C., recently chartered with a capital stock of \$100,000, has completed its organization by the election of the following officers: E. Y. Webb, president; A. G. Mangum, vice-president; S. N. Boyce, treasurer; John F. Holland, secretary. The directors are Messrs. S. J. Durham, T. S. Royster, L. F. Groves, J. B. Beal, A. G. Myers, D. M. Jones, C. A. Kiser, T. M. Fayssoux, J. O. White, George F. Bason and B. J. Hoffman. In a report submitted by Froehling & Robertson, analytical and consulting chemists of Richmond, Va., who examined the tin properties controlled by the Southern Tin Co., the statement is made that three well-defined pegmatite veins are found running through the group of properties, and samples from the outcrops taken have shown tin in paying quantities, some of the samples being very rich. It is the opinion of the chemists that at several points the prospects for development are very bright, and fully justify development work being started, with every indication of successful results.

Coal Movement Brisk.

Advices from Fairmont, W. Va., announce that the coal shipments from that region are growing daily, and if the increase continues in proportion for another week the shipments will eclipse those of any previous season. Coal operators are not experiencing much difficulty now in securing cars. An independent coal company in the vicinity of Fairmont has just finished loading a cargo of 6800 tons of coal for an Italian port, which is to be used in the manufacture of gas in American-built plants.

Coal Property Bought.

The Bessemer Coal, Iron & Land Co. of Birmingham, Ala., has consummated a deal at Knoxville, Tenn., for the purchase of the Wind Rock Coal & Coke Co.'s coal-mining properties at Wind Rock, Tenn., the amount paid being nearly \$140,000.

The output of the Wind Rock mines is estimated at nearly 1000 tons daily, and this, with the product of the Belle Ellen mine near Birmingham, which the Bessemer Coal, Iron & Land Co. is working, will aggregate a yield approximating 1,000,000 tons annually. C. H. Thompson, who served the Wind Rock Coal & Coke Co. as general manager, will be retained in the same capacity for the Wind Rock mines by the purchasing company.

The Iron and Metal Trades.

The *Iron Age* of New York in its weekly review says:

"The week has been a very uneventful one in nearly all directions. What is almost a deadlock between buyers and sellers of pig-iron continues, the only fair degree of activity being in the Chicago district. Virginia furnaces have sold there and in St. Louis basic pig to the extent of about 7000 tons, and inquiry for this class of iron is cropping up in other directions. The Birmingham market is weaker, in spite of the fact that there is some uneasiness over the possibility of trouble with the coal miners. The absence of a demand for pig-iron by the large steel companies is causing pressure upon the market on the part of merchant furnaces, which usually supply them, and which are now accumulating metal. The market for steel is easier, and some of the interests which have had little to offer in the past are now hunting for business. Our blast-furnace statistics show that production for May, a month of 31 days, was 1,969,455 tons, or the largest on record, that being the result of the impetus of the enormous capacity with which we entered the month. The productive capacity, however, fell off during the month from 452,031 tons on May 1 to 442,892 tons on June 1."

Baltimore Builders' Exchange.

At the annual meeting of the Builders' Exchange of Baltimore officers were elected as follows: President, Theodore Mottu; first vice-president, Theodore F. Krug; second vice-president, Joseph T. Lawton; third vice-president, F. G. Boyd; secretary, John M. Hering; treasurer, B. F. Bennett; directors, J. L. Gilbert, G. W. Walther, W. E. Burnham, Charles J. Wood, F. G. Walsh, Harry L. Starr, C. M. Ellinger, Henry A. Seim, George B. Roche, John Bullock, A. J. Dietrich and John K. How.

Retiring President Kelly reported that during the year 1638 building permits, representing an investment of \$20,000,000, had been issued, and he expressed the belief that for several years to come Baltimore will be a center of building activity.

New Fertilizer Plant.

The Planters' Warehouse & Fertilizer Co. has been organized in the offices of F. W. Wagener & Co. at Charleston, S. C., with a capital stock of \$25,000, and a charter will be applied for immediately. The following officers were elected: Capt. F. W. Wagener, president; W. H. Welch, vice-president; P. F. Sullivan, secretary and treasurer. No definite statement of the plans and purposes of the new company was announced, but it is believed that the Kinsman farm on the Ashley river, which was recently purchased by F. W. Wagener & Co., will be utilized as a site for a fertilizer factory. In the light of this new enterprise and the fact that other interests are preparing for the development of properties in the district the belief is general that there will soon be renewed activity in the fertilizer business in South Carolina.

It is estimated that the increase over 1904 in assessment of personality and improvements at Chattanooga, Tenn., will amount to \$500,000.

Seeks a Change of Duties.

A party who has had several years' practical experience in industrial and immigration development, now located and employed in the South, desires to make a change and act as industrial agent for some Southern transportation line, or would accept service as secretary of industrial association in some progressive city. Highest references as to ability to show results can be shown, it is stated. Correspondence addressed "Business," care of the MANUFACTURERS' RECORD, will be forwarded.

For India Trade.

R. H. Motishaw & Co., No. 9 Love Lane, Mazagon, Bombay, India, write to the MANUFACTURERS' RECORD that they wish to learn the names of American houses trading in mica, garnet, graphite, asbestos, gadolinite, feldspar and quartz.

The Board of Trade of Tampa, Fla., of which Mr. W. R. Fuller is president and J. D. Calhoun, secretary, has issued a folder showing the progress of the city during the past year. This indicates a gain in government revenue of 14 per cent., in the output of the cigar industry of 17 per cent., in bank deposits of 10 per cent., and in ocean tonnage movement of 40 per cent.

The Charlotte *Evening Chronicle* calls attention to the fact that three large cotton mills there just about completed represent an investment of \$2,500,000; that there are in course of construction other large undertakings representing an expenditure of \$1,290,000, and that a great number of residences are being built.

The Clinton (La.) Progressive League has published an attractive pamphlet setting forth the advantages in its locality for homeseekers and investors. Mr. D. W. Pipes is president of the league; Dr. E. L. Irwin, vice-president; George J. Woodside, secretary, and H. H. Forrest, treasurer.

Mr. I. H. Sykes, secretary of the Columbus (Miss.) Progressive Union, estimates that since 1902 the increase in capital invested in industries in that city was 295 per cent., in the number of employees 275 per cent., and in the weekly pay-roll 285 per cent.

The Commercial Club of Louisville, Ky., has adopted an envelope for the letters that leave its office calling attention of homeseekers, manufacturers, capitalists, laborers and merchants to the opportunities for them at Louisville.

Plans are afoot for the establishment of a new line of coastwise steamers between Baltimore and other Southern ports in which members of the Williams family, late identified with the Weems Line, are interested.

A regular steamship line between Galveston and Havana will be started next week. It is owned by a company including N. Gelats and L. S. Ganban of Havana, and H. Mosle of H. Mosle & Co. of Galveston.

Since the first of the year 38,035 tons of Peace River phosphate rock have been shipped through Punta Gorda, Fla., of which 9765 tons for domestic use were shipped in May.

The Diana Brick & Tile Co. of Loeb, Texas, has, according to a dispatch from Beaumont, been awarded contract for 3,000,000 bricks for Panama canal construction.

The schooner Joseph G. Ray has reached Alexandria, Va., with a cargo of phosphate rock from Punta Gorda, Fla.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

BALTIMORE-WASHINGTON.

High-Speed Electric Railway Which Will Also Go to Annapolis.

The Washington, Baltimore & Annapolis Electric Railway Co., which has under construction a double-track electric railway from Baltimore to Washington, and which will convert to electricity the old Annapolis & ElkrIDGE Railroad, which it owns, has applied to the city council in Baltimore for a franchise to permit its cars to enter the city. The Baltimore Terminal Co. has been organized in the interest of the railway, and it is proposed to establish a terminal near the center of the city.

This railway project is now controlled by the Bishop and Sherwin syndicate of Cleveland, Ohio, and Mr. George T. Bishop, president of the company, is also president of the Northern Texas Traction Co., which for several years has successfully operated an electric line between Fort Worth and Dallas, Texas, over a route about equal in length to that proposed between Baltimore and Washington. The company proposes to run cars every 15 minutes between the latter cities, the time of the trip one way to be one hour. The company has a private right of way for the entire distance, and will be able to make high speed. It is said that there will be 27 miles of straight track in the 31-mile line between the limits of the two cities, and already more than 60 per cent. of the grading has been completed. John Sherwin of Cleveland, who is associated with Mr. Bishop in the Baltimore & Washington line, is vice-president of the Northern Texas Traction Co. Others who are in the latter company from Cleveland are Messrs. Charles E. Adams and John Masterton. The line from Baltimore to Washington will be of standard gauge, as is the Fort Worth and Dallas road.

The idea of building an electric railway to connect Baltimore and Washington was first taken up 8 or 10 years ago, the Baltimore & Washington Electric Railway Co., sometimes called the Boulevard Electric Line, being organized by residents of Baltimore and Washington. The project was ambitious, providing for a wide highway connecting the two cities, so that all vehicles as well as electric cars could be accommodated. Part of the railway was constructed, starting from a point close to the shopping district in Baltimore, but the company became involved in financial difficulties and its property finally passed into the hands of the United Railways & Electric Co. of Baltimore, which now uses part of it between Baltimore and Ellicott City. About five years ago the project was revived by capitalists of Cleveland, Toledo and Akron, Ohio, and considerable work was done, resulting in the extension of the Washington end of the line as far as Laurel, Md., about 15 miles from the capital. This new company finally passed into the hands of receivers, and the project has only lately been refinanced, with the prospect that it will now be carried through to completion.

RAILROAD AND CITY.

Big Land Purchase and Building of a Railroad in Florida.

Messrs. Brobston, Fendig & Co., real-estate dealers, Brunswick, Ga., write the MANUFACTURERS' RECORD confirming the report of a large deal which has been closed for 193,000 acres of land in Liberty and Franklin counties, Florida. The deeds have been made out and the money paid over by the purchaser, the St. Joseph

Land & Development Co. It amounted to about \$1,000,000.

The parties interested in the purchase are financing the Apalachicola & Northern Railroad Co., which is now grading a line from Apalachicola, Fla., to St. Joseph's Bay, Fla., where there is a very fine Gulf harbor, land-locked and with deep water. The company proposes to build a city at St. Joseph's Bay. A bridge will be built crossing the Apalachicola river about one-half mile from Apalachicola, and the road will be extended north, probably crossing the Seaboard Air Line Railway between DeQuincy and River Junction, Fla., and will touch the Atlantic Coast Line at Bainbridge, Ga. It is thought, however, that the road will be extended north to Atlanta.

Continuing, the firm writes that the people behind this movement are fully able to carry out any of their plans. Mr. Charles B. Duffie is in charge of the construction work on the road. His address is Apalachicola, Fla. Mr. R. H. Hemphill is at the head of the land company, and also general manager. His address is at the Planters' Hotel, St. Louis, Mo.

MAY BE M'HARG'S ROUTE.

Two Small Railroads Now Building to Connect Through the Blue Ridge.

Mr. L. T. Nichols, general manager of the Carolina & Northwestern Railway, writes the MANUFACTURERS' RECORD that the company is not making any extensions, but that the Caldwell & Northern Railroad is extending its line across to the Tennessee coal fields, but the route beyond the Blue Ridge is not yet decided upon.

The Caldwell & Northern Railroad is a narrow-gauge line running northwest from Lenoir, N. C., the northern terminus of the Carolina & Northwestern (which is a standard-gauge road), to Collettsville, N. C., a distance of 10 miles. It appears that this road will be connected with the Linville River Railway, the chief engineer of which recently wrote the MANUFACTURERS' RECORD that track is being extended from Saginaw, N. C., and that it is expected to complete the line to a connection with the Carolina & Northwestern (probably the Caldwell & Northern) this coming fall.

The connection of these two narrow-gauge lines would make connection with another narrow-gauge line—the East Tennessee & Western North Carolina Railroad—at Cranberry, N. C., which latter runs from that point to Johnson City, Tenn., connecting at Elizabethton, Tenn., with the Virginia & Southwestern Railway, a road which has been seeking an outlet for coal traffic from Virginia and Tennessee regions. Thus it is possible that these narrow-gauge lines will be converted to standard gauge, and, in connection with the Carolina & Northwestern, which connects with the Southern Railway in North Carolina, furnish the desired outlet to the sea. The construction now in progress makes it appear as if some such plan was in view.

The Virginia & Southwestern is controlled by Henry K. McHarg, who is president of it, and others, all interested in the Virginia Iron, Coal & Coke Co.

President L. E. Johnson on Rates.

President L. E. Johnson of the Norfolk & Western Railway recently addressed the Chamber of Commerce at Roanoke, Va., on the subject of "Regulation of Rates by a Commission," and a copy of his address has been received by the MANUFACTURERS' RECORD. He contended that:

"I. An administrative and investigating body constituted in such a manner and for such purposes of prosecution of com-

plaints as the interstate commerce commission is necessarily unfitted by its very character and purpose for the judicial function, which must be impartially exercised, of fixing minimum rates.

"II. Existing rates are not unreasonable.

"III. The present powers of the commission and of the courts under the Interstate Commerce Act are entirely adequate if enforced.

"IV. The President did not recommend the vesting in the commission of the power to fix rates generally."

In conclusion, Mr. Johnson quoted Judge Peter S. Grosscup of Chicago as laying down the axiom that a prosecutor should not be a judge, and that the interstate commerce commission had overstepped itself in trying to be both, instead of leaving the judicial function to the federal courts, as intended.

NEW RIVER COAL ROAD.

Piney River & Paint Creek Line Will Develop 12,000 Acres of Fuel Land.

Mr. S. Dixon writes from Macdonald, W. Va., to the MANUFACTURERS' RECORD confirming the report that the Piney River & Paint Creek Railroad has been chartered to build a line from Beckley Station, on the Chesapeake & Ohio Railway, on the Piney river, to some point on Paint creek, near the mouth of Mosay creek, connecting with the Deepwater Railroad, about 21 miles, thus making a connection between the Chesapeake & Ohio and the prospective Tidewater road.

The building of the Piney River & Paint Creek line will develop about 12,000 acres of New River coal, 7000 acres of which is own and controlled by the incorporators. The contract to build the line has been let to Messrs. Carpenter, Frazier & Boley, and about 150 to 200 men are already employed. It is expected that the grading will be completed by October 1 next, and that five or six openings will be made into the Sewell seam in the New River district.

Mr. Dixon is general manager of the Macdonald Colliery Co., the Sugar Creek Coal & Coke Co., the White Oak Fuel Co., the Price Hill Colliery Co., the Stuart Colliery Co., the White Oak Coal Co. and the Mabscott Coal & Coke Co.

C. & O. Activity.

The Chesapeake & Ohio Railway will, it is reported, make several extensions in the coal regions of Kentucky and West Virginia. A dispatch from Mayking, Ky., says that the company has let the contract for a 10-mile extension up Marrowbone creek into the great Elkhorn coal field in Letcher county, work to begin immediately. It is furthermore said that the line to Elkhorn City will be completed by June 25, and that within two months another branch will be started up the main fork of the Elkhorn.

Over in West Virginia the company is reported to have practically completed the extension of the Greenbrier branch from Durbin to Arbogast, in Pocahontas county, West Virginia, a distance of six miles; also that by a further extension of about 25 miles it will connect with the Dry Fork Railroad, 30 miles long, connecting with the West Virginia Central at Hendricks, W. Va.

Another report says that the company will extend the Coal River Railway—now 22 miles long from St. Albans to Holly, W. Va.—by building a line through Logan and Boone counties to a point beyond Madison, W. Va., 45 miles.

While these reports are unconfirmed, and may not be accepted as wholly accurate, the company is known to be very active in both Virginia and Kentucky in the building of lines for the development of coal and timber lands.

B. & O. Appointments.

The Baltimore & Ohio Railroad Co. has established a test bureau and has appointed Mr. J. R. Onderdonk as engineer of tests, with headquarters at Baltimore. The bureau will analyze, inspect and test material purchased for the company and also equipment and appliances, in order to see that only the best materials are furnished, and that construction is done in the best manner. This will cover a wide range, including track and bridge material, material for buildings, locomotives, cars, etc.

The Baltimore & Ohio Railroad has appointed Mr. J. B. Dickson, engineer maintenance of way, to be chief engineer in charge of the maintenance of way department, and the system has been divided into three sections, each of which will have an engineer of maintenance of way of the main line at Baltimore, Mr. H. K. Temple of the Pittsburgh system, with headquarters at Pittsburgh, and Mr. J. A. Spielmann of the Wheeling system, headquarters at Wheeling.

WILMINGTON-SOUTHPORT.

A Terminal Company Incorporated to Build a Railroad.

The South Atlantic Terminal Co. has been chartered, with headquarters at Wilmington, N. C., to build a line of railroad from Wilmington to Southport, about 30 miles. It is said that the portion of the road that will first be constructed is from Navassa, in Brunswick county, to Southport, but that later it will be extended to Wilmington. The incorporators are H. A. Dougherty of New York city, D. W. Bullock, Wm. M. Bellamy, George L. Morton, C. T. Bennett and Joseph H. Hinton of Wilmington. Mr. Dougherty, it is said, owns 295 shares, and the others one share each.

While nothing definite appears to connect the two companies, it is surmised that this project is in some way related to the announcement that the Seaboard Air Line will build from Wilmington to Southport.

Eight New Lines in Arkansas.

A number of small railroads have lately been chartered in Arkansas, among them the following: The Greenville & Southeastern, to build from Greenfield to Marked Tree, 20 miles; the Homan & Southern, to build from Homan to Hervey, about 9 or 10 miles; the Portland & Southeastern, from Portland, Ark., about 20 miles to the Louisiana boundary; the Clark & Pike County, from Gurdon 14 miles to a point near Hollywood; the Saline Bayou, from Oakleaf to a point near Joan, 14 miles; the Lester & Ouachita Valley, from Lester to Rosston, 24 miles; the McMurray & New London, to build from McMurray 2 miles; the Saginaw & Ouachita River, to build from Saginaw Junction to Saginaw, 3 miles. Most of these lines, it is understood, are for getting out timber, and the names of the incorporators will be found in the Railroad Construction columns of the MANUFACTURERS' RECORD.

Jacksonville to Pablo Beach.

The Jacksonville, Suburban & Seashore Railroad Co. has given formal notice that it will apply for a charter to build a steam or electric railroad from Jacksonville, Fla., to a point at or near Pablo Beach, about 20 miles. The incorporators are John D. Lawrence, William A. Riddle, M. H. Bidez, William T. Simmons, A. G. Humphreys and D. P. Myerson, Jr., all of Jacksonville. Mr. Lawrence is president, and Mr. Riddle is secretary and treasurer, the incorporators being the directors, with the addition of Mr. William S. Ferrell. Most of the stock is held by

Messrs. Lawrence and Riddle, the other incorporators having merely nominal amounts. The Riddle-Lawrence Company, office in the Stockton & Budd Building, is said to have promoted the company.

To Build Across Florida.

A railroad of some magnitude is projected in Florida by the St. Mary, Suwannee & Gulf Railway Co. of Suwannee county, with headquarters at Live Oak. It is to build a line from a point in township 8 north, range 27 east, in Nassau county, not far from Fernandina, and thence westward to Live Oak, and also from Live Oak westward into Lafayette, Taylor, Jefferson and Wakulla counties, a total distance of 180 miles. The construction of such a line would give a road from a point near the Atlantic ocean across the northern part of the State of Florida to a point near the Gulf. The incorporators are Frank Drew, T. P. Alston, George L. Drew, R. N. Ellis, Jr., and others.

Canadian Valley & Western.

Information received by the MANUFACTURERS' RECORD from an officer of the Canadian Valley & Western Railway Co. is to the effect that the line is to be built from Lehigh, I. T., to Chickasha, I. T., via Stonewall, Byars and Purcell. It will cross the Missouri, Kansas & Texas, the Choctaw, Oklahoma & Gulf, the Missouri, Oklahoma & Gulf, the St. Louis & San Francisco, the Eastern Oklahoma, the Gulf, Colorado & Santa Fe, the Kansas City & Fort Smith and the Oklahoma City & Western lines. R. L. McWillie of Purcell, I. T., is chief engineer. All specifications, plans, surveys, etc., are completed, and will be sent to any contractor who desires to make a bid.

New Depot at Wheeling.

The Baltimore & Ohio Railroad's new depot at Wheeling will cost about \$300,000. This passenger station is to be constructed of granite and sandstone, and will be 260 feet long by 100 feet wide in the center and 80 feet wide in the wings. It will be three stories in height in the center and two stories high in the wings. The tracks will be carried on a viaduct, the track level being even with the second story of the station. The entire improvements at Wheeling, which are quite extensive, including elevated tracks and yard facilities, will cost about \$1,600,000.

Percy, Lake Providence & Yazoo.

Messrs. Jayne & Watson, attorneys, Greenville, Miss., write the MANUFACTURERS' RECORD that the incorporators of the proposed Percy, Lake Providence & Yazoo Railroad are J. M. Cashin, James Robertshaw and Hugh C. Watson, all of Greenville, Miss. The line will be about 95 miles long, and will connect Glen Allen, Grace, Valley Park and Percy with the Yazoo & Mississippi Valley Railroad and Percy with the Southern Railway. The line will traverse a portion of the delta which is adapted to the growth of cotton.

A Southern Appointment.

Mr. H. E. Waernicke has been appointed assistant land and industrial agent of the Southern Railway Co., with office at Washington. Mr. Waernicke was associated with Mr. M. V. Richards in the industrial work of the company for a long time, with the exception of the past few years, when he was executive clerk in the office of Vice-President W. W. Finley. His return to the industrial department is an acquisition of no small moment.

Monroe to Cheneyville.

The Standard & Baton Rouge Railway Co. has filed its charter at Monroe, La., with headquarters at that place. It pro-

poses to build a line about 110 miles long southward via Standard, La., to Cheneyville, La. The directors are J. B. York, president; J. F. Rutherford, vice-president; C. J. Samtag, secretary and general manager; E. T. Lamkin, general attorney; D. H. Duncan, Robert York and R. L. Rutherford.

Jackson to Memphis.

Application has been made for the charter of the Jackson, Yazoo City & Memphis Railway Co. to build a line from Jackson, Miss., via Yazoo City to Memphis, Tenn., about 200 miles, crossing the Sunflower river near Woodburn, Miss. The incorporators are I. H. Barnwell, E. S. Crane, Ben. Exum, W. H. Madden and others, all of Yazoo City, Miss.

Cars Purchased.

The Atlantic Coast Line is reported to have given a contract for 1500 freight cars, 1000 of which will be built by the Western Steel Car & Foundry Co. and 500 by the Waycross (Ga.) Car Works.

The George's Creek Coal & Iron Co. of Baltimore, operating mines in the George's Creek region in Maryland, has ordered 300 steel coal cars.

Railroad Notes.

The Baltimore & Ohio Railroad is reported to have awarded to the Westinghouse Air Brake Co. a contract to equip 10,000 freight cars with the new friction-draft gear.

The Alabama Great Southern Railroad, according to a dispatch from Gadsden, Ala., has purchased from the receivers of

ATLANTA'S NEW UNION DEPOT.



The new union terminal station in Atlanta, Ga., which was recently opened for service, is one of the handsomest structures of its kind in the country. The depot building containing the offices, waiting-rooms, etc., is 180x210 feet, and is built of steel-gray brick and stone with red tiled roof. It is four stories high and is in the style of the Spanish renaissance. The principal waiting-room is 130 feet long and 90 feet wide, and is tastefully and elaborately adorned. The train shed is 500 feet long and 265 feet wide, with 12 tracks and a capacity that is estimated at 1000 trains and 150,000 passengers every 24 hours. The terminal is used by the Southern Railway, the Atlanta & West Point Railroad and the Central of Georgia Railway. It covers 13 acres of ground, and the total cost of land and station was more than \$1,600,000, nearly \$1,000,000 being expended for construction. The Atlanta Terminal Co., the principal officers of which are connected with the Southern Railway, controls the terminal.

Ever since the opening of the station it has been the subject of highest praise by travelers and others who have seen it. The interior finishings are in hardwood, mosaic and marbles. The decorations of the grand waiting-room are in old Spanish yellows, ivory and gold, and the effect of these in this apartment, which has a floor space of 9368 square feet, is extremely beautiful. The waiting and retiring rooms for ladies are finished in blue and rose, with trimmings of rose-colored marble, the chairs and lounges being upholstered in leather, also of an old-rose tint. The gentlemen's smoking and reading room is finished in terra-cotta, with trimmings of Flemish oak and green marble. The furniture here is upholstered in dark-green leather. In the lunch and dining rooms and ladies' cafe the decorative scheme is in Spanish terra-cotta, with gray marble trimmings. The waiting-room for colored people is handsomely decorated in Spanish shades of rose, with Flemish oak and Georgia marble trimmings, and their dining-room and cafe is decorated in yellow, with gray marble trimmings. It is important to note that all trains can be reached without crossing any tracks, notwithstanding that 24 trains may be accommodated simultaneously under the train shed, which is one of the longest in the world.

the Southern Car & Foundry Co. the Elliott car shops at Gadsden, and will use them for repairing equipment.

The *Frisco Magazine* for June appears in a green cover, quite appropriate for the season. The contents are a diversity of material well calculated to interest the general reader. Some poetry as well as prose is presented, and the illustrations are good.

According to a report from New Orleans, it is suspected that the Gulf Coast Electric Railway, to be built by Capt. J. T. Jones of Gulfport, Miss., and others, will be the nucleus of an electric railway designed to extend from Mobile to New Orleans.

Mr. C. S. Shuford, superintendent of the Selma Street & Suburban Railway Co. of Selma, Ala., writes the MANUFACTURERS' RECORD that the company is going to extend its lines and will be in the market for rails and ties, besides motor cars and trailers.

The Central of Georgia Railway announces that Mr. J. H. Hall has been appointed superintendent of the Macon division, vice Mr. C. B. Wilburn, resigned, and Mr. H. D. Pollard has been appointed superintendent of the Southwestern division to succeed Mr. Hall, transferred.

A dispatch from Kansas City, Mo., announces that C. W. Coughlin has been appointed general manager of the Kansas City Southern Railway; that F. Mertsheimer has been appointed superintendent of motive power, L. F. Gordon as purchasing agent and M. A. Calhoun as chief clerk to the president. These changes

have been made by the new president of the company, J. A. Edson.

Mr. H. Genereux Dufour, secretary of the Colorado Southern, New Orleans & Pacific Railroad Co., writes the MANUFACTURERS' RECORD that President C. C. Cordill authorizes the statement that the road will positively be built and operated within the next 20 months from New Orleans to DeQuincy, La., and also that several surveying parties are now in the field.

The Northern Central Railway reports for April gross earnings, decrease, \$39,900; expenses, increase, \$66,200; net earnings, decrease, \$106,100. For the four months ended April 30, gross earnings, increase, \$22,100; expenses, increase, \$164,000; net earnings, decrease, \$141,900. Comparisons are made with the corresponding month and period of 1904.

The Gulf & Ship Island Railroad reports through Fisk & Robinson, bankers, of New York and Boston, as follows: For April, gross earnings, \$150,567; operating expenses and taxes, \$115,365; net earnings, \$35,202. For 10 months ended April 30, gross earnings, \$1,547,770; operating expenses and taxes, \$1,164,775; net earnings, \$382,995. The Louisiana & Arkansas Railway reports through the same firm for April, gross earnings, \$71,640; operating expenses and taxes, \$43,831; net earnings, \$27,809. For 10 months ended April 30, gross earnings, \$681,432; operating expenses and taxes, \$423,568; net earnings, \$257,864.

The annual convention of the Texas Cottonseed Crushers' Association will meet at Galveston June 20-22.

FOREIGN TRADE

Trade With Bohemia.

The American consul at Prague, Bohemia, transmits a request through the MANUFACTURERS' RECORD to American exporters and importers to send to his consulate their latest catalogues, together with the following information: Name of firm, street, city and cable address, codes used, export discounts and terms, languages of correspondence, references or commercial rating, nature of exports and imports, list of foreign branches and agents, supplementing this with complete information permitting immediate sales, thus getting rid of irritating epistolary angling. This will be filed gratis by firms and merchandises in the commercial intelligence department of the consulate of Prague by the card and catalogue system devised by our consul at this post. The Kingdom of Bohemia has a population of over 6,000,000, and that in the very heart of Europe, and is practically virgin territory for American exporters.

Studying Bulawayo.

F. Norris, P. O. Box 271, Bulawayo, South Africa, writes to the MANUFACTURERS' RECORD that he proposes to handle American agricultural machinery, for which he expects a grand opening within a year. He adds:

"This country is passing through a very severe depression, and the result, I think, will be to make people study the land. At present there is a demand for small three and five-stamp batteries, but in the ordinary trades business is as bad as can well be. I am studying to find the best market for agricultural machinery and implements, and I should like to get into communication with a good firm of buyers and shippers in America."

Algeria and America.

S. Moudier of Constantine, Algeria, writes to the MANUFACTURERS' RECORD that he is interested in nearly all the manufactured products of America, especially hardware, cordage and twines, axles and springs, agricultural and industrial machinery, hides, leather and windmills, and that he would like to correspond with manufacturers of such. He also desires to get in communication with a direct exporter of petroleum willing to give him a monopoly of the sale of the product, and also with a contractor to build an oil refinery for the production of gasoline for automobiles.

Wants American Machines.

Otto A. Barleben of Dortmund, Germany, writes to the MANUFACTURERS' RECORD that he desires American proposals for a complete plant for turning small wood screws. Also wants a machine for making steel-wire fencing and a machine to make rivets of the larger size by the Cole process, one which is capable of working drawn wire of five-eighths of an inch into rivets with specially large heads. He has a call for special machinery for new pasteboard and paper factory.

Motor-Car Materials Wanted.

The MANUFACTURERS' RECORD is in receipt of a letter from H. Zornow of Germany stating that he wants to buy motor-car materials from American manufacturers. He wants prices f. o. b. New York for cabs on car bodies of the best style and workmanship in the white, motor-car seats, bent timber for car bodies, motor-car artillery wheels, axles, hubs or naves, chassis or underframes, etc. Address H. Zornow, Altona (Elbe), Germany.

Frederico Huber, Genoa, Italy, informs the MANUFACTURERS' RECORD that he desires to handle American products there.

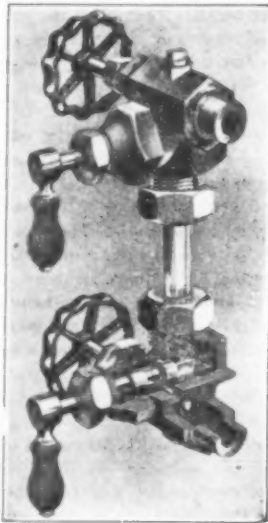
MECHANICAL

Shallow's Automatic Water Gauge.

Many efforts have been made to devise a boiler water gauge which will automatically shut off the escaping water and steam when the gauge glass leaks, and of the various inventions having this object in view the Shallow valve, illustrated herewith, is claimed to be the most satisfactory, in that it fulfills every requirement and at the same time eliminates the defects that exist in other valves designated for this work.

It has been conceded that if a perfect automatic water gauge could be devised its use on boilers and high-pressure tanks would be morally obligatory and should be made compulsory by law, for the obvious reason that one fruitful source of accidents more or less serious would thus be removed. That such a law has not already been passed is doubtless due to the fact that heretofore no reliable and efficient instrument was available.

It is a well-known fact that where gauge glasses are provided on locomotives the engineers frequently throw them out of service and depend entirely on their try-cocks to inform themselves as to the water line in the boiler, the excuse being that the danger from a broken glass is



SHALLOW'S IMPROVED AUTOMATIC WATER GAUGE.

greater than from anything else around the locomotives, and although it is seldom that satisfactory evidence can be found, it is almost certain that the majority of locomotive boiler explosions are caused by low water.

The Shallow gauge, like most good things, is exceedingly simple in principle and in construction. The automatic valve is not subjected to wear excepting only when it is closed through the breaking of a glass, and as this occurs only at widely-separated intervals, there can be no appreciable wear for many years. The whole valve is constructed of brass, and the design of the passages and working parts is such that no trouble is ever experienced from the collecting of sediment or scale and the consequent sticking of the valve. The action of the Shallow gauge when a glass breaks is so instantaneous that in practically every case some water still remains in the bottom of the broken glass after the valve closes. A new glass is inserted at once and without any preliminaries, and as soon as it is in place the automatic valves are brought into position for further service by the simple turning over once of the two automatic handles.

In connection with marine boilers in which very high steam pressure is carried, and about which the fireroom space is very limited, the advantages of Shallow's Improved Automatic Gauge are even

greater than in the case of stationary boilers, the danger from flying glass and hot water and the filling of the boiler-room with steam being absolutely eliminated.

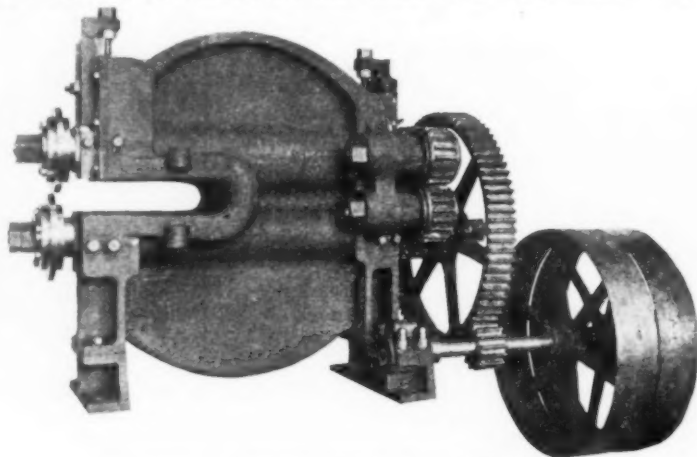
The advantage of the Shallow valve in connection with pressure tanks for elevator systems, etc., is as obvious as in the case of boilers; in fact, an automatic gauge on elevator tanks is almost indispensable.

The Shallow gauge is manufactured by the Wm. S. Haines Company, 132 South 4th street, Philadelphia.

The Birdsboro Company's Plant.

The manufacture of iron and steel products is one of the great industries of this

country. Wagner cold-saw cutting-off machines and diamond prospecting drills), the company makes a specialty of rolling mills, rolling-mill machinery, hydraulic machinery and punches and shears. It also builds all kinds of machines and tools from blueprints and specifications, having furnished in the past gas engines, test cutting machines for armor-plate, ingot cars, slab cars, riveters, steam hammers, cotton compresses, etc. The company was known until recently as the Diamond Drill & Machine Co., but it continues to make diamond drilling machines and carries on a business of prospecting, having at present four crews at work in different portions of the United States. Two ac-



BIRDSBORO SLITTING SHEAR—CAST-STEEL FRAME.

For Cutting 3/4-inch Plates. Built in All Sizes.

country. Numerous extensive plants for that purpose are distributed throughout the various sections, being, of course, more numerous in the iron and steel-producing districts, where raw materials can be obtained at minimum prices. Brief reference to one of the leading iron and steel plants in Pennsylvania is of interest. This is the plant of the Birdsboro Steel Foundry & Machine Co. at Birdsboro, Pa. The establishment at present employs about 500 men.

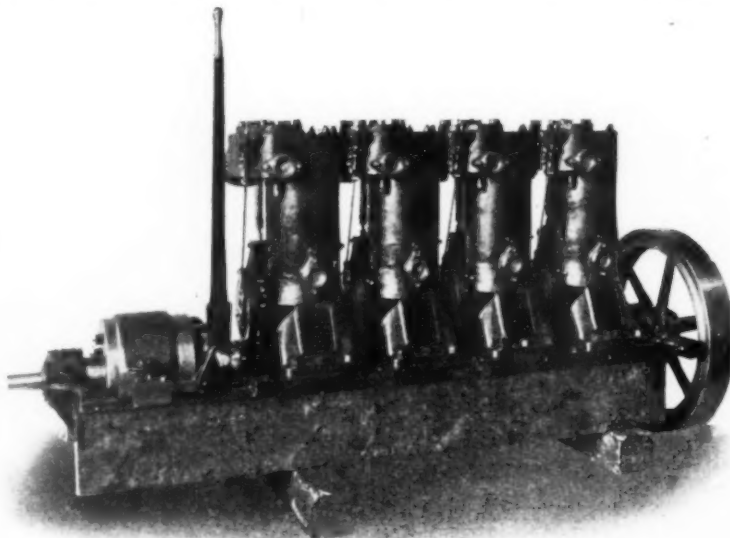
The products in the steel foundry consist of steel castings for locomotives, rolls

comparing illustrations show Birdsboro work.

The Birdsboro plant is located on the lines of and has shipping facilities over the Pennsylvania Railroad, Schuylkill division; main line of the Philadelphia & Reading Railroad, and main line of the Wilmington & Northern Railroad.

Birdsboro is 49 miles from Philadelphia, 139 miles from New York and nine miles from Reading.

The plant consists of a steel foundry 248 feet wide and 360 feet long, an iron foundry 109 feet wide and 202 feet 5



GAS ENGINES BEING CONSTRUCTED AT BIRDSBORO STEEL FOUNDRY & MACHINE CO.'S PLANT.

and pinions, rolling-mill castings, machine-molded steel gears and castings for general machinery; capacity about 1000 tons per month.

The iron foundry produces castings for the company's own work, air furnace rolls and pinions, rolling-mill castings and general jobbing work; capacity 750 tons a month.

In the machine shops, besides the building of special machines (belt-lacing ma-

inches long. No. 1 machine shop 78 feet wide and 170 feet 8 inches long. No. 2 machine shop 52 feet 9 inches wide and 128 feet 7 inches long. smith shop 37 feet wide and 50 feet long. power-house 32 feet wide and 44 feet long. boiler-house 41 feet 2 inches wide and 45 feet long. pattern shop 50 feet wide and 60 feet long. pattern storage 62 feet wide and 66 feet long. Each department is fully equipped with the latest improved appliances of every

character that can tend to perfect the finished product or permit of effecting economies in manufacture without interfering in the slightest with the high quality for which the Birdsboro plant is noted.

The Glover Locomotive and Machine Works.

It is always an interesting subject to consider the growth of some one of the numerous important manufacturing en-

terprises located in the South. Many of the best-known industrial establishments there have developed from small beginnings and been enlarged and the scope of their facilities extended from time to time as demanded by improving conditions and the efforts of their managements to cater to an enlarging clientele.

An industry of this character is the one which is illustrated herewith, a general view of the plant being shown, besides a diagram presenting the plan of the establishment. This is the Glover Locomotive and Machine Works of Marietta, Ga.

company is building hoisting engines. The product of this company has been shipped to all parts of the world. Mexico, England, Scotland, Ireland, Germany and Australia are represented among the countries to which the Glover Locomotive and Machine Works has made shipments, many of these being repeat orders.

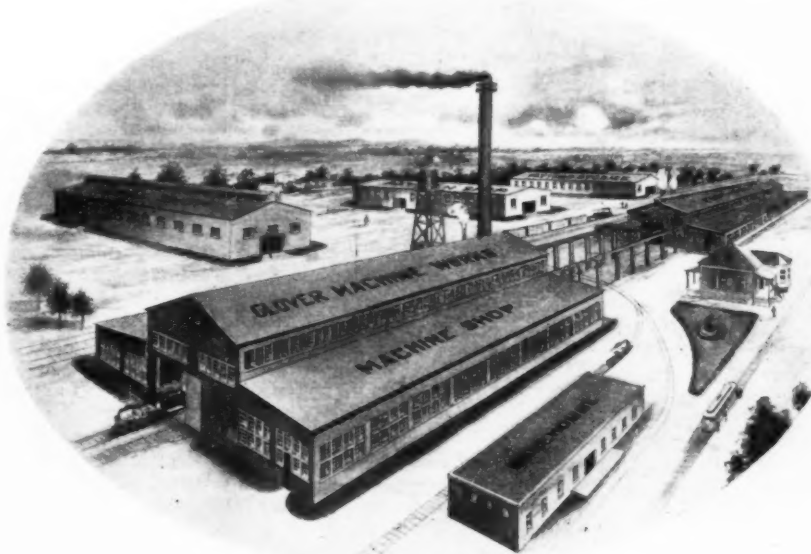
The entire plant occupies 10 acres of land, adjoining which is held 79 acres for future extensions. It includes a 100x128-

manager of the Glover Locomotive and Machine Works; S. D. Rambo; vice-president; O. B. Keeler, treasurer; Leon Comerford, secretary, and F. B. Davant, general superintendent. Its capital stock is \$125,000.

Lifting Magnets.

A bulletin has been issued to cover the general subject of the use of lifting magnets for all classes of material. A partial

lift had to be hoisted 15 feet to clear a box car, trolleyed 20 feet and carried 75 feet down the yard. It will be evident that at least one hour was consumed in crane travel. The lifting magnet bulletin endeavors to point out the advantages of lifting magnets over ordinary methods of handling material. It presents sketches and describes the methods of wiring from



THE GLOVER LOCOMOTIVE AND MACHINE WORKS AT MARIETTA, GA.

foot machine shop, 96x100-foot foundry, 30x88-foot pattern shop, 30x96-foot pattern storage shop, 30x60-foot engine and boiler room, 54x100-foot paint shop, 30x36-foot supply department, 50x90-foot forge shop, 50x100-foot boiler shop and 40x60-foot office building.

The machinery and mechanical equipment includes the latest modern machines and tools, electric traveling cranes for handling materials from foundry to machine shop, direct motor-driven machines in the machine room, pneumatic hoist for lifting charges to the cupola platform

list of materials which may be handled to advantage by means of lifting magnets is divided into three classes.

The first class covers pig metal, scrap of all kinds and material such as rivets, bolts, etc., which may be handled in bulk. The sizes of magnets for this class of material are described, with illustrations showing the magnets as actually used in the stockyard of a large steel-casting plant. An accompanying illustration shows a magnet of the first class carrying heavy melting stock.

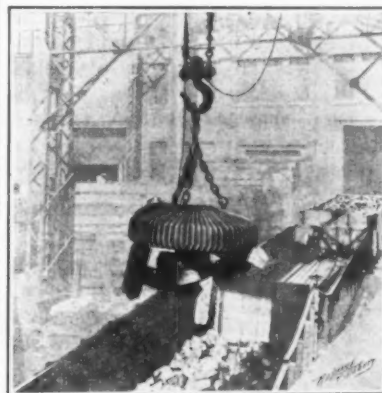
A particularly novel use of this magnet



LIFTING MAGNETS CARRYING HEAVY MELTING STOCK.

a crane cage to the magnet. This is an important point, as there is no doubt that many companies have been deterred from the using of lifting magnets on account of the supposed difficulty of taking care of the slack wire necessary to provide for the operation of the crane.

Many of the magnets referred to are in



MAGNET UNLOADING A CAR OF BUTTS OR HEAVY CROP ENDS.

successful operation. They are given a thorough test to three to six times the lifting capacity guaranteed on a special machine designed for this purpose before being shipped from the factory.

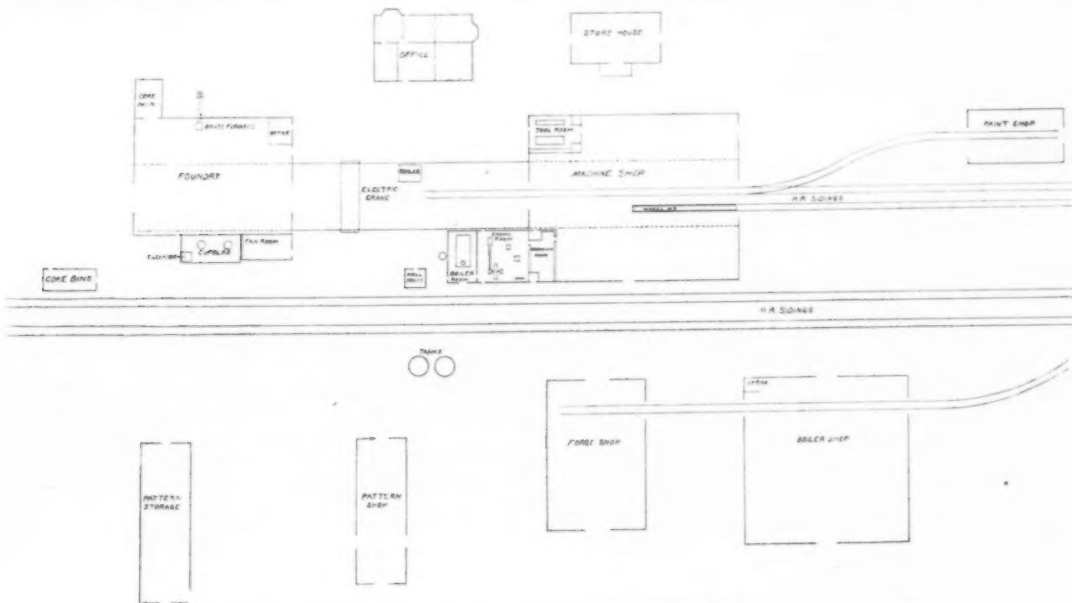
These magnets are manufactured by the Electric Controller & Supply Co. of Cleveland, Ohio.

The Fuller Combing Gin.

As a whole the attachments and adjuncts of existing cotton-gin outfits are generally satisfactory; of the feeding, delivery and conveying there is no complaint.

James T. Fuller, the well-known inventor of cotton machinery, conceived the idea that if the attachments and surroundings of the 30,000 or so gin outfits scattered throughout the South could be let stand, while overcoming the inherent defects of the saws, the problem as to absolutely perfect ginning would be solved.

A process technically known as "combing" has been recognized and applied since 1850 as the only way by which short, immature and unripe fibers and other objectionable matters can be separated from



THE GLOVER LOCOMOTIVE AND MACHINE WORKS—ARRANGEMENT OF PLANT.

The Glover Locomotive and Machine Works was established in 1890 as a repair shop, and developed to such an extent that it was incorporated in 1903, when several important additions were made. It was the overhauling and general repairing of locomotives and general machine work which first engaged the plant's attention, this latter developing into the manufacture of locomotives exclusively of all types and sizes, especially those of the largest types. Besides locomotives, the

from foundry, tanks and automatic sprinklers for fire protection, two railway tracks through the machine shop for shipping, and four tracks in the yards connecting with the N. C. & C. L. R. R.

It may be added that the Glover industry was originated by J. B. Glover, Jr., of the class of '88 of the Lehigh University, who was also the superintendent of motive power of the Marietta & North Georgia Railroad until December, 1896.

J. W. Glover is president and general

manager of the Glover Locomotive and Machine Works.

Another type is that suitable for handling material having flat surfaces, such as plates, billets, ingots, slabs, etc. Another accompanying illustration shows the magnet at work unloading a car of butts or heavy crop ends, many pieces weighing over 500 pounds.

This car, 61,000 pounds net, was unloaded in one and one-half hours, and each

their more perfect fellows, and the inventor of the combing gin has followed this demonstrated principle to its logical conclusion and applied it to the operation of ginning.

The principle of the Fuller gin is one of extreme simplicity, and might be termed an amalgamation of the principles of both

wide, forming with the needles a "circular comb."

When clamped together on the gin-cylinder shaft by end nuts the needles are as firmly held as if they were in a solid piece of cast-iron, yet on loosening these nuts three turns the rings can be instantly separated, and the needles, which fit in

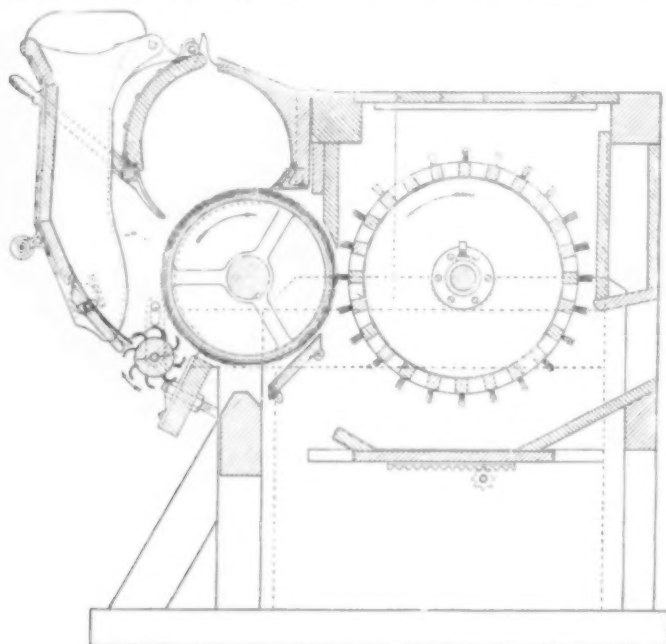


FIG. 1.—SECTION OF THE FULLER COMBING GIN.

the saw gin and the roller gin; that is, round-edge blades, simply constructed and formed onto short riblike parts, perform the function of the rib of the saw gin and the knife-blade of the roller gin. This device, which the inventor has named a "combing finger," is made of case-hardened



FIG. 2.—SEGMENTS OF CIRCULAR COMBS. (Showing how needles have superseded saw teeth.)

steel. These fingers are smoothly finished and fastened by screws to a cast-iron bar attached to the hinged breast girt of the gin, and are made to template,

their angular slots, can be quickly taken out and replaced.

This operation is as simple as the placing of a needle in a sewing machine. The needles are made of hardened, tempered



FIG. 4.—STATIONARY COMB. (Illustrating Stationary Combing Fingers.)

and polished steel, and their cost is said to be less than that of a gin saw.

A combining action has been substituted for one which tears the fiber from the



FIG. 3.—THE CIRCULAR COMB.

being therefore interchangeable. This construction is a radical departure from the common gin rib. The ginning cylinder consists of a series of cast-iron rings and spiders three-quarters of an inch

seed. It has been shown that a saw-tooth will cut a string readily, but the same twine can be seesawed across the working face of one of the needles of the combining gin indefinitely without injury.

This must be obvious from the fact that the needles are smooth and polished, having also an elliptically-shaped section. Saws get out of the plane they are intended to operate very frequently, and this causes a shearing action between them and the cast-iron grids they revolve between. On the new gin the combining needles cannot be made to injure the staple. Again, and rather surprising, is the facility, ease and satisfactory manner in which the combs strip the different varieties of long-staple cotton from the seed. No argument could appeal to the cotton expert more strongly than the manner in which this is done.

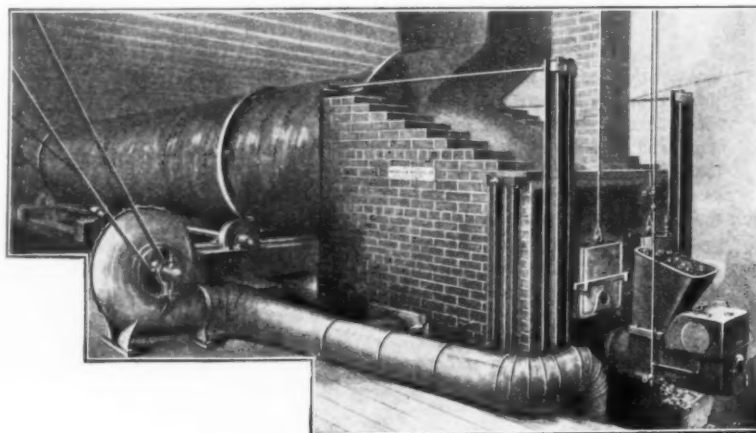
Outward appearance discloses a striking similarity between the old gin and the new, but in truth the combining gin is a new "type" organically different from its outward prototype. But the handler of cottons perceives the characteristics of the product delivered by the later invention. The accessories of the new machine are practically the same as those of the saw gin; it uses the same belt, feeding and lint-handling attachments, while no more skillful attendants are required.

Adverting to the attractive property of the prevailing system, that of big output, it is claimed that this combining apparatus can more than equal its forerunner in yield. Several years have been given to the bringing of the machine described to the point where its practicability and sim-

shell, where they mingle thoroughly with the material being dried. By the revolutions of the dryer the material is constantly dropped through the hot gases. The material and furnace gases travel in the same direction, with the highest temperature in contact with the wettest material, which procedure is theoretically and practically essential to economy, and prevents injury to the material, for as it becomes dryer the heat is constantly dropping, and when the material is dry it does not come in contact with a heat greater than 200 degrees, thus preventing cracking of seed or injury to clay.

For material that does not admit of coming in contact with direct heat, a steam-heated air-dryer is furnished, which is the same as shown herewith, except that in this type no furnace is installed; instead, the air is heated by being first passed over steam coils. It then enters the drying cylinder, and by the rotation of the same the material to be dried is constantly showered through the hot air and discharged from the dryer perfectly and evenly dried. In this way the heat comes in direct contact with every part of the material to be dried.

The direct-heat type is always recommended for material that will admit of coming in contact with the gases of combustion, as the direct-heat principle is an important feature. The capacity of air and gases for carrying off moisture in-



AMERICAN PROCESS CO.'S DIRECT-HEAT ROTARY-BLAST DRYER.

plecity of operation could be shown, and after tests in ginneries operated by the most ordinary ginning hands it has proven entirely satisfactory.

Accompanying illustrations show the Fuller Combing Gin System. The new machine is to be manufactured and marketed by the Fuller Combing Gin Co. of Charlotte, N. C.

Direct-Heat Rotary-Blast Drying.

In numerous manufacturing establishments and others of an industrial character the drying of materials is an important part of the work done.

Equipments for such drying have been perfected by modern engineers so that the operation is effected with the least possible difficulty and at a minimum expense, at the same time in the least possible time. An accompanying illustration presents a view of the direct-heat rotary-blast dryer which the American Process Co. installs for those in the market for such equipment. This system has been placed in many of the largest plants in the United States, as well as foreign countries, and is especially adapted to the drying of clay, sand, phosphate rock, marl, lime refuse, tartaric pomace, etc.

This dryer is continuous in action, the material being constantly fed in at one end and discharged at the other perfectly and evenly dried. The fuel is consumed in the furnace, and the gases of combustion discharged directly into the dryer

increases enormously in proportion to fuel consumed where the higher temperatures are used. In this system it is possible to employ this principle to the fullest extent without any injury to the material undergoing drying, and at the same time the company guarantees high efficiency of evaporation.

The moving parts are very few and so constructed that the wear is small and entirely confined to parts easily repaired or replaced at small cost.

It is known positively that this dryer is one of the most economical both in first cost, as a larger capacity is obtained for a small expenditure of capital, and also in the cost of operation, on account of its design and construction, requiring a minimum of labor and utilizing a maximum of heat in the fuel. Only one man is required to operate the machine, and his work consists in superintending and firing.

Initial installations are made on a guarantee of capacity and economy of operation, at prices that will interest those who contemplate installing dryers.

These dryers are handling as high as 20 tons of material per hour, with remarkably low fuel consumption and labor.

In the drying of sand the question of importance is economy, which is secured to the greatest extent on account of the unobstructed shell, the material being showered from the top to the bottom of the shell and really dried in suspension.

A highly promising process for utilizing

saw-mill refuse has been developed. A plant that manufactures alcohol from sawdust has been recently installed, and one of these direct-heat dryers is used for drying the sawdust, which is afterwards manufactured into briquettes for fuel.

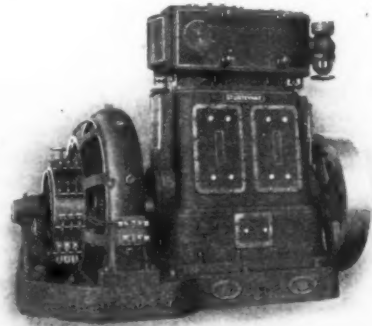
This direct-heat dryer is also in use for handling packing-house tannage, tankage water, blood, stock, natural guano, steamed bone, boiled leather scrap, etc.

It is also especially adapted for drying fish offal. For this purpose is also made continuous cookers and presses. Three complete plants for this purpose were recently sold to the Canadian government, and one is now being erected at Port Angeles, Wash. The Atlantic Fisheries Co. at Cape Charles, Va., has one of these plants.

The American Process Co., 62 William street, New York, manufactures the direct-heat rotary-blast dryer and other equipment.

Sturtevant Generating Set.

The accompanying illustration of Sturtevant generating sets for use with V. C.-6 vertical cross-compound engines is presented in the belief that it will attract the attention of power-users, who will be interested in a brief reference to the details of the equipment. These details may be



STURTEVANT GENERATOR FOR USE WITH V. C.-6 VERTICAL CROSS-COMPOUND ENGINES.

enumerated as follows as to the generators:

Magnet Frame: 1. Of best grade cast iron. 2. Vertical adjustment of frame provided 16 K. W. and above.

Pole Pieces: 1. Of wrought iron with cast-iron shoes through bolted to frame to allow removal of individual coils.

Field Coils: 1. Shunt and series field coils separately wound and separately mounted on the pole pieces. 2. Both shunt and series coils connected in series.

Armature: 1. Of ironclad two-circuit form-wound ventilated-drum type. 2. Core of special low-carbon steel mounted on cast-iron spider. 3. Spider designed to avoid shrinkage strain, and with ample bearing surface on shaft. 4. Hub extension on spider for support of commutator. 5. Laminations punched from best quality thoroughly annealed electrical sheet steel. 6. Laminations magnetically insulated from each other and clamped together in such manner as to obviate all liability of displacement due to magnetic drag, etc. 7. Space blocks inserted at intervals between laminations to provide ventilation. 8. Laminations set up under pressure. 9. No bolts passing through laminations. 10. Armature balanced both electrically and mechanically.

Commutator: 1. Of bars or segments of pure hard-drawn copper, secured on a cast-iron shell of spider construction and clamped with a steel ring. 2. Above shell supported on hub extension of armature spider. 3. Insulation between the segments consists of the best quality selected mica, and the end insulation of mica rings. 4. All copper wire to have at least conductivity of 98 per cent.

Insulation: 1. Receives a 60-second

breakdown test of 1500 volts, alternating under a resistance of at least one megohm, with an initial voltage of 500. 2. Damp-proof and unaffected by temperature up to 100 degrees C.

Brushes: 1. Of carbon. 2. Each brush separately removable and adjustable. 3. Point of contact on commutator remains same as brush wears away. 4. Current density does not exceed 30 amperes per square inch bearing surface.

Brushholders: 1. Staggered to even wear on commutator. 2. Mounted on studs projecting from brush rigging attached directly to magnet frame, this ring being arranged to be rotated for adjusting brushes. 3. Brushholders of sliding socket shunt type, with flexible connection for each brush. 4. Each brush and holder separately adjustable and readily removable for cleaning and repairs.

Operation and Tests, etc.: 1. Capable of carrying 50 per cent. overload for short periods of time without shifting of brushes or sparking at commutator. 2. Capable of continuous operation at 25 per cent. overload without sparking or undue heating. 3. Heat rise after continuous run of 10 hours full load will not exceed 40 degrees C. above surrounding atmosphere in any of the parts. 4. For insulation resistance see "Insulation." 5. Jump

in voltage does not exceed 15 per cent. when full load is suddenly thrown on or off. 6. The magnet frame is divided in half horizontally to allow lifting upper half for removal of armature, etc.

The engine may be noted as follows:

Oiltight Frame: 1. Detachable hinged oiltight doors. 2. Centrifugal oil thrower at bearing between engine and generator and between engine and governor wheel. 3. Watershed partition. 4. Stuffing-boxes for piston and valve rods accessible from outside inclosing case.

Forced Lubrication: 1. Direct driven oil pump. 2. No oil in steam spaces. 3. Oil press to average 15 pounds; vary between 10 and 20 pounds. 4. Efficiency of engine without forced lubrication, 80 to 90 per cent.; efficiency of engine with forced lubrication, above 90 per cent. 5. Accessibility of oil pump.

Regulation: 1. By Rites governor. 2. One and one-half per cent. no load to full load.

Drain and Relief Valves: 1. Usual drains piped to one main drain with bypass to L. P. receiver. 2. Relief valves each end of each cylinder arranged to lift from seats to relieve cylinders of water.

Cylinders: 1. Material, hard, close-grained charcoal iron, tested by water pressure before assembling.

H. P. Valve: 1. Balanced double-ported piston valve with special snap rings turned eccentrically with sliding joints.

L. P. Valve: 1. Flat balanced double-ported side valve, arranged to lift from seat.

Lagging: 1. Lagging done after preliminary run of engine in order to detect any defects in castings. 2. Method of se-

curing lagging allows of ready removal, etc. 3. Covered with Russia iron with steel binding.

Steam and Exhaust Outlets: 1. Allows of piping from either side.

Throttle Valve: 1. Ninety degrees angle valve looking up.

Pistons and Rods: 1. Cast-iron pistons with special snap rings turned eccentrically and with sliding joints. 2. Rods of high-carbon steel secured to piston by taper fit and nut.

Crossheads: 1. Steel with adjustable shoes and bronze box for pin in connecting rod.

Connecting Rods: 1. Removable bab-bitt-lined boxes for crankpin. 2. Cross-head pin pressed and doweled in Y at end of rod.

Crankshaft: 1. Forged in one piece, with C. I. counterweight securely bolted thereto. The generator coupling is forged on this shaft.

Main Bearings: 1. Lined with Sturtevant white metal. 2. Lower half of bearing may be removed by revolving around shaft.

Indicator Rig: 1. Complete rigging with each engine. 2. Arranged so that oiltightness of case may be preserved while taking cards.

Foundation: 1. Built and inspected under the rigid specifications of the United States Navy Department, for which a number of these engines have been built in connection with generating sets.

Interchangeability of Parts: 1. All parts made from templates and duplicates carried in stock.

The B. F. Sturtevant Company of Boston manufactures the Sturtevant generating sets.

Chicago Pipe-Bending Machine.

One of the latest improved devices for pipe-bending is shown by an accompanying illustration. It is the Chicago Pipe-Bending Machine.

The machine is very simple in its construction, but will accomplish a marvelous complexity of work. Moreover, it demands the services of an ordinary helper only, who can, with the aid of this machine, bend an amount of pipe to any desired complex curvature.

Its weight renders it extremely portable, and it can be secured to any column stanchion or any available support in a few minutes, or a suitable stand can be furnished, as shown by the illustration.

Piping of steel, iron, brass, copper or other material can be bent cold up to two inches diameter with one man. This device is indispensable in shipyards, pipe shops, locomotive works, sugar-houses and



THE CHICAGO PIPE-BENDING MACHINE.

other places where pipe is used to any extent.

Manufacturers of heating plants, structural and architectural iron, fire-escapes, etc., will find this portable pipe-bender especially useful. The device is also well adapted (by having special dies that can be readily attached) for bending light angles, flats or tee bars to any desired radius as easily as bending pipe. Where pipes are coated by the Sabin process, galvanized, tinned, etc., this machine will

bend such pipe to any desired shape without breaking the coating in any way. One man can bend a piece of two-inch pipe to an 8 bend in three minutes, no other assistance or device being used or needed.

The cost of repairs where it has been used 10 hours per day in shipyards, railway shops and other places has been so slight as to be a negligible quantity. It has been thoroughly tested in the navy-yards.

This machine is manufactured by the Chicago Pneumatic Tool Co. of Chicago, general offices in the Fisher Building.

Cottonseed Interests Aroused.

Upon motion of Mr. Alexander Allison, seconded by Mr. F. W. Brode, the Merchants' Exchange of Memphis adopted last week, in view of reported proposed changes in the tariff schedules of Germany, Austro-Hungary and France affecting cottonseed and its products, a series of resolutions, including the following:

"That the Merchants' Exchange of the city of Memphis urges upon Southern United States Senators and Representatives, upon the Southern newspaper press and upon all commercial and trade organizations throughout the South earnest efforts to arouse public interest in this subject and to make immediate and concerted efforts for defense against the threatened destruction of a most important Southern industry.

"That it is the opinion of this exchange that in furtherance of the proposed effort for defense it is of the highest importance that co-operation should be secured between the various trade organizations throughout the whole country, and that this co-operation can best be secured by formal appeals in each State by the commercial and trade organizations therein to the United States Senators and Representatives of such States.

"That this exchange believes that the practical method for accomplishing the desired ends is not doctrinal controversies on the tariff questions, but simply strong memorials to Congress for the consideration at its next session of the present emergency and the meeting of it by a declaration in favor of whatever modification of our tariff policy can be made without serious disturbance to the American system of protection, and which will at the same time give due consideration to whatever complaints are made the basis by foreign countries for their radical attacks upon the existing order of things.

"That if reciprocity by legislation should seem more feasible and less offensive to many than reciprocity by treaty, such legislation should make the present rates of duty the maximum and not the minimum."

Copies of these resolutions will be sent to Southern Senators and Representatives in Congress, to commercial and trade organizations throughout the country, asking co-operation, and to the Secretary of State, with an urgent request that every possible means be exhausted in procuring a stay of the proposed action on the part of Austro-Hungarian governments increasing their import duties on cottonseed oil, especially till the Congress of the United States can consider and find a reasonable and speedy cure for the antagonisms shown by the prohibitive tariff measures now promulgated and soon to become effective in that country.

Oil Mill Superintendents.

The Cotton Oil Mill Superintendents' Association is in session this week at Memphis, Tenn., with an interesting program, already noted in the MANUFACTURERS' RECORD. It is expected that the meeting in Memphis will result in a large expansion of the membership of the association and an increase in its usefulness.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

A Silk Mill Addition.

It has been decided to build another mill for the Wadesboro Silk Manufacturing Co. of Wadesboro, N. C. Contract will be awarded in the near future for the building, a brick structure 200 feet long and 45 feet wide. This building will be equipped with modern machinery for the spinning of silk. The company has also awarded contract to W. T. Brasington for the erection of a temporary frame building which will be completed during the coming week and will be used as a school of instruction preparatory to the full operation of the permanent mill. Negro boys and girls will be employed, the management having decided that it can be successful with this class of operatives, judging from the results attained by the owners of the silk mill at Fayetteville, N. C., where several hundred negroes have been at work for several years. George Singleton of Dover, N. J., controls the Wadesboro Company. He was mentioned lately as establishing a silk mill at Augusta, Ga.

The Emporia Cotton Mills.

The Emporia Cotton Mills of Emporia, Va., has been incorporated, with a capital stock of \$50,000, and the following officers: President, James T. Green of Messrs. Amon Green & Co., yarn dealers, Baltimore, Md.; vice-president, G. B. Wood; treasurer, W. R. Cato, and secretary, E. L. Wood; the three last named are of Emporia. In April last the MANUFACTURERS' RECORD stated that Messrs. Amon Green & Co., G. B. Wood and others were forming a cotton-mill company to build at Emporia. The previous announcement said that the product of the mill will be from 50,000 to 60,000 pounds of coarse yarns, twine, sewing thread, etc., per week.

New England Capitalists Interested.

Dispatches from Fall River, Mass., state that Messrs. Arthur S. Phillips, J. Thayer Lincoln and Chauncey H. Sears of that city are visiting different mill districts of the South with a view to selecting sites for the establishment of cotton factories. It is believed these New England capitalists are among those who are interested in the five mills to be located on the Southern Pacific Railway in Texas, reference to which was recently made in this column. Mr. Lincoln is one of the well-known cotton-machinery builders of Massachusetts, and Mr. Sears is a contractor for the erection of mill buildings.

Aldora Mills to Enlarge.

H. R. Robertson of Macon, Ga., representing capitalists of that city, has purchased the Aldora Mills at Barnesville, Ga., the property including 33 acres of land, buildings equipped with 9916 mule spindles, steam-power plant, etc., for manufacturing yarns. It is said that \$65,000 was the purchase price. The purchasers intend to organize a stock company to overhaul and modernize the mill and continue its operations, adding looms (made by the Draper Company of Hopedale, Mass.), so that cloth can be woven from the yarns now produced.

The Cuero Manufacturing Co.

The MANUFACTURERS' RECORD of May 25 referred to the incorporation of the Cuero Manufacturing Co. of Cuero, Texas, with capital stock of \$5000, for manufacturing hosiery, etc. This company has since organized with J. A. Graves, president; V. J. Grunder, vice-president, and L. A. Carter, secretary-manager. It will

manufacture hosiery, overalls, jumpers, etc., and has already completed the installation of equipment.

The Southland Knitting Mills.

The Southland Knitting Mills of Macon, Ga., referred to last week, will have an equipment of 40 knitting machines and 85 sewing machines when completed. The company will buy 10s and 26s yarns and manufacture underwear. It will bleach and dye its product. Messrs. Hecht & Campe, 97 Franklin street, New York, are the selling agents. Mr. Campe of the firm is president of the Southland Knitting Mills.

A Mill for Iva, S. C.

Articles of incorporation have been filed for the Jackson Mills of Iva, S. C., the capital stock being \$200,000, and the purpose to build a cotton mill. The incorporators are Messrs. D. P. McBrayer of Anderson, S. C.; T. C. Jackson, W. P. Cook and W. T. Sherard of Iva. Mr. McBrayer was mentioned several months ago as interested in a movement for locating a cotton mill in Iva.

Textile Notes.

It is reported that Cleveland Woolen Mills of Cleveland, Tenn., will begin at once the rebuilding of its plant, which was damaged to the extent of \$25,000 by fire last week.

The Yazoo Cotton Mills of Yazoo City, Miss., will be reorganized and its indebtedness placed on a better basis. The company has been operating profitably for some months past, and has 6740 ring spindles in position.

It has been decided to about double the capacity of the Oriental Textile Mills of Houston, Texas. This company manufactures high-grade bolting cloth of camel's hair, and it is reported contracts have been awarded for new machinery costing \$100,000.

Steady progress is being made with the construction of the addition for the Wiscasset Mills Co. of Albemarle, N. C. As stated recently, the building is to be two stories high, 125x275 feet, and will be equipped with 15,000 spindles. About \$225,000 will be the cost of the improvement. It is also to be noted that the new mill will be electrically driven throughout.

Reference was made last week to the incorporation of the Textile Manufacturing Co. of Charleston, S. C., capitalized at \$15,000. The company should have been named as the Textile Manufacturing & Commission Co., and it will not manufacture, but act as direct mill agents for cotton goods, hosiery, yarns and twines. Messrs. W. W. Wagner and James P. Gibbs, the incorporators, have their offices at 37 Pinckney street.

QUOTATIONS OF COTTON YARNS

By Paulson, Linkroom & Co., New York, Philadelphia and Chicago.
June 6.

No. 10s-1 and 12s-1 warps.....	15 @ 15½
No. 14s-1 warps.....	15½ @ —
No. 16s-1 warps.....	16 @ —
No. 20s-1 warps.....	16½ @ 17
No. 22s-1 warps.....	17 @ 17½
No. 26s-1 warps.....	17½ @ 18
No. 6s to 10s yarn.....	14½ @ 15
No. 12s-1.....	15 @ 15½
No. 14s-1.....	15½ @ —
No. 16s-1.....	16 @ —
No. 20s-1.....	16½ @ 17
No. 22s-1.....	17 @ 17½
No. 8s-2 ply soft yarn.....	15½ @ —
No. 10s-2 ply soft yarn.....	15½ @ 16
No. 8s-2 ply hard.....	15 @ 15½
No. 10s-2 ply hard.....	15½ @ —
No. 12s-2 ply.....	16 @ —
No. 14s-2 ply.....	16½ @ —
No. 16s-2 ply.....	17 @ —
No. 20s-2 ply.....	17½ @ —
No. 22s-2 ply.....	18 @ —
No. 26s-2 ply yarn.....	19½ @ 20
No. 40s-2 ply.....	24 @ 25
No. 8s-3, 4 and 5 ply.....	15 @ 15½
No. 20s-3 ply chain warps.....	18 @ —
No. 24s-2 ply chain warps.....	19 @ —
No. 26s-2 ply chain warps.....	19½ @ —
No. 30s-2 ply chain warps.....	20½ @ —
No. 16s-3 ply.....	17 @ —
No. 20s-3 ply.....	17½ @ —
No. 26s-3 ply.....	19 @ —

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Substitute for Mahogany.

The Gulf Land & Lumber Co. of Leesville, La., is making extensive improvements to its yellow pine and hardwood lumber mills, increasing the capacity of the former to 75,000 feet per day and the latter to 50,000 feet. A large amount of money is being expended for the improvements, as it is the purpose of the management to have its plant among the most modern in the State. Thomas Stables, general manager of the company, is reported from Lake Charles as referring particularly to the hardwood operations of the mill. The company owns a stumpage of 20,000 acres of hardwood timber, including red gum, oak, etc., for which the demand is turning largely to the South. The idea is advanced that one feature with reference to red gum that may eventually bring it into more prominence in the lumber market is the difficulty with which the finished product is distinguished from mahogany, and much of this lumber is being used to supply the demand of the export trade.

Mahogany for Export.

Mr. Fred Langbehn of Galveston, Texas, is reported as saying that since February his company has shipped from Laguna and Frontera, Mexico, to Galveston over 2000 tons of mahogany logs. The company has about 500,000 feet of mahogany lumber of various dimensions in stock at Galveston, which is being seasoned for market. It has also 580 tons of mahogany logs awaiting the arrival of a steamship from Cuba which will carry them to Hamburg, Germany, for distribution. Mr. Langbehn's company owns a creosoting plant at Galveston which is undergoing improvements. The capacity, now 20,000 superficial feet per day, will be increased.

Companies Consolidate.

The Shippen Brothers Lumber Co. of Eljay, Ga., has consolidated with the North Georgia Lumber Co. of Knoxville, Tenn., under the firm name of the first-mentioned company. These interests own 100,000 acres of farming, mineral and timber lands, and will also develop marble properties located three miles north of Eljay. The marble is of superior quality, and will doubtless prove valuable. Shippen Brothers Lumber Co. has completed many improvements at its plant, owning an electric-light plant by which it is now arranging to light the town. The company has 3,000,000 feet of lumber ready for market.

Spoke Manufacturers.

At the meeting of the Spoke Manufacturers' Association, which was held in Nashville, Tenn., on May 30-31, the following officers were elected: Peter Leah, Memphis, Tenn., president; J. Wallace Ferguson, Fayetteville, Ark., first vice-president; J. W. Van Ness, Clarksville, Miss., second vice-president; O. P. Buchanan, Nashville, Tenn., secretary. The association is composed of spoke manufacturers of Tennessee, Arkansas, Mississippi, Kentucky, Indiana, Illinois and Missouri, whose purpose is to regulate grades of material and control prices. Headquarters will be maintained in Nashville.

Handle Association.

M. R. Grace, president of the Southern Handle Co. of Memphis, Tenn., has completed details for the meeting of the National Hickory Handle Association at the Gayoso Hotel, Memphis, June 8. The association is composed of about 30 han-

dle factories, which represent nearly the entire output in the United States. After the business session the delegates will be entertained at a banquet.

To Utilize Waste Blocks.

The Liberty Chair Co. of Liberty, N. C., which is establishing a chair factory, will have as refuse from the plant a lot of square blocks 8, 10, 12, 14, 16 and 18 inches long and 1½ inches square. The company wants to manufacture marketable articles from these blocks, and invites makers of woodworking machinery to send information and prices on machinery suitable.

Removing Saw-Mill.

E. D. Williamson of Cerro Gordo, N. C., is removing his saw-mill to Bird Cage Siding, on the Conway & Elrod branch of the Atlantic Coast Line Railroad, about two miles from Chadbourn, N. C. The mill cuts timber of various dimensions, and will be ready for operation within 10 or 15 days.

Lumber Notes.

The four-masted schooner Salisbury, hailing from Baltimore, Md., arrived at Washington, D. C., with a cargo of about 1,000,000 feet of pine lumber from Jacksonville, Fla.

The Nona Mills Co., Ltd., of Beaumont, Texas, shipped 2,600,000 feet of lumber during May, an increase over April of 200,000 feet. About 150,000 feet of this went to Germany.

The Kirby Lumber Co. of Beaumont, Texas, which has just sent out a big tow of sawn timber from Sabine, Texas, is cutting another large tow which will be gotten off within a few days.

The schooner Henry Weiler of Bath, Maine, A. G. Bishop in command, has sailed from the North State Lumber Co.'s docks at Charleston, S. C., with a cargo of 412,000 feet of lumber for Boston, Mass.

The Industrial Lumber Co. of Beaumont, Texas, has just loaded four vessels at Port Arthur, each with a cargo of 800,000 feet of lumber, which is to fill orders that have been standing for some time. The same company has also shipped to Northern points a carload of curly pine lumber.

H. M. Ashby of the Long-Bell Lumber Co. of Kansas City, Mo., superintended the loading at Port Arthur, Texas, of a large quantity of sawn timber which his company is shipping to Philadelphia. This is one of a number of shipments that the Long-Bell Lumber Co. has made by water to Northern points.

The steamship Eriphia has cleared from Port Arthur, Texas, with a cargo of 1,722,000 feet of lumber and timber, including some white oak, for Rotterdam and Antwerp. The Danish barkentine Sostrene also cleared with a cargo of 275,000 feet of rough and dressed timber for the Senegal coast of Africa. These cargoes, with additional shipments which have gone out from Port Arthur, Texas, make an aggregate of 4,430,000 feet of lumber exported within the past few days by F. E. Newcombe of Lake Charles, La., who superintended the clearing of the vessels.

The Knoxville (Tenn.) Woolen Mills has begun the erection of an additional building which will be used as a pattern room and designing room. The company also contemplates the installation of a modern equipment for the electrical drive, instead of the present system—rope drive. There are 178 broad looms in this plant.

The fifth annual National Good Roads Convention is to be held June 21-24 in the auditorium of the Lewis and Clark centennial exposition, Portland, Ore.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and more attention than a mere circular.

BALTIMORE BUILDING NOTES.

Business Buildings.

Baltimore—Dwellings.—Michael J. Fitzsimmons, 516 South Charles street, has commissioned Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street, to prepare plans for four dwellings on Baltimore near Payson street; three stories, 15x65 feet; brick with stone trimmings; tin roofs; sanitary plumbing; heating systems.

Baltimore—Store Building.—Philip Restivo & Sons, 915 Linden avenue, have awarded contract to M. Luther Wright & Co., 324 West Biddle street, for the construction of store building at 310 West Biddle street; three stories, 25.8x32 feet; brick with stone trimmings; steel beams; tin roof; sanitary plumbing; heating system; cost \$7000.

Baltimore—Store and Office Building.—Broderick & Wind, Calvert Building, St. Paul and Fayette streets; Henderson & Co., Ltd., 218 West Fayette street; Wm. Steele & Sons, 17 West Saratoga street; Henry Smith & Sons Company, 116 South Regester street; Morrow Bros., 212 Clay street; A. J. Robinson & Co., 30 West Franklin street, are estimating on the construction of store and office building at 19 South Calvert street for R. Brent Keyser, 14 East Mt. Vernon Place; five stories, 18x51 feet; Indiana limestone exterior with granite base; steel-frame construction fireproofed with concrete; slag roof; vault lights; metal frames and sashes; sanitary plumbing. Lighting fixtures, electric wiring and heating system not in contract. Bids to be in about June 12; Wyatt & Nolting, architects, Builders' Exchange Building, 2 East Lexington street.

Baltimore—Bank.—The Provident Savings Bank, Elisha H. Perkins, president, Saratoga and Howard streets, will erect bank at corner of Broadway and Gough street; structure to be one story high, 27x50 feet; brick with stone trimmings; Sperry, York & Sawyer, architects, Calvert Building, Fayette and St. Paul streets.

Baltimore—Store Building.—Richmond H. Ford & Co., Equitable Building, Calvert and

Fayette streets, and Joseph Schamberger, 2215 East Baltimore street, are estimating on alterations and additions to be made to store buildings at 221 and 223 West Madison street for W. J. Johnston, 223 West Madison street; Worthington & Ahrens, architects, 8 East Lexington street.

Baltimore—Store Building.—Samuel Spreat, 203 North Pine street; German & Co., 327 St. Paul street; A. Kneil, Jr., 215 St. Paul street; C. S. M. Williamson, 18 East Lexington street; John A. Sheridan Company, 321 North Holliday street, are estimating on reconstruction of store building at 214 West Fayette street for the Fisher estate, 216 West Fayette street; Worthington & Ahrens, architects, 8 East Lexington street.

Baltimore—Dwellings.—T. F. Edwards, 513 North Rose street, will erect 12 dwellings at Federal and Luzerne streets; two stories, 14x14 feet; brick with stone trimmings; cost about \$12,000.

Baltimore—Dwelling.—Augustus Pfeil, Warner and Stockholm streets, has purchased lot at southwest corner of Garrison and Beach avenues, and will erect dwelling on the site to cost \$9000.

Baltimore—Jail.—Proposals addressed to the Board of Awards and left at the office of the city register, City Hall, until 11 A. M., June 16, are invited for the erection an addition to the women's prison building of the Baltimore city jail. Plans and specifications may be obtained from the office of the inspector of buildings, City Hall. Usual rights reserved. John A. Sheridan Company, 321 North Holliday street; C. S. M. Williamson, 18 East Lexington street; Steel Concrete Construction Co., 400 St. Paul street; P. J. Cushen, 30 West Franklin street, and the Hennebique Construction Co., 1316 Continental Building, Baltimore and Calvert streets, are estimating on the work.

Baltimore—Dwellings.—Charles H. Gerwig, builder, 603 Fidelity Building, Charles and Lexington streets, will erect 23 dwellings on St. Paul street near 29th street; three stories, 18x68 feet; brick with stone trimmings; tin roofs; galvanized-iron cornices; electric wiring and fixtures; sanitary plumbing; heating systems; cost about \$115,000; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore—Store Building.—J. F. Stuckert, 215 North Calvert street; John Hughes, Jr., Saratoga and St. Paul streets, and Russell Construction Co., 17 East Saratoga street, are making revised estimates on construction of three-story store building at 117 North Liberty street for Bowen & King, 119 North Liberty street.

Baltimore—Store Building.—Frederick Oldham, Park avenue and Fayette street, has awarded contract to C. C. Watts, 113 Hamilton street, for the construction of proposed store building at 211 East Fayette street; two stories and basement, 23x100 feet; brick with artificial-stone trimmings; steel beams; tin roof; tile floors; wrought and cast iron work; electric wiring and fixtures; sanitary plumbing; steam-heating system; Flounoy & Sparklin, architects, 347 North Charles street.

Baltimore—Dwelling.—Louis De Barth Gardiner, 2012 North Charles street, has commissioned Morris & Clifford, architects, 808 Equitable Building, Calvert and Fayette streets, to prepare plans and specifications for dwelling at Mt. Washington (near Baltimore); two and one-half stories, 30x40 feet; frame construction on stone foundation; shingle roof; electric wiring and fixtures; sanitary plumbing; hot-water heating system.

Baltimore—Store Building.—Wm. J. Johnston, 223 West Madison street, has awarded contract to Richmond H. Ford & Co., 335 Equitable Building, Calvert and Fayette streets, for the alterations and additions to store buildings at 221 and 223 West Madison street; Worthington & Ahrens, architects, 8 East Lexington street.

Baltimore—Church.—The Brown Memorial Church, John T. Stone, pastor, Park and Lafayette avenues, has awarded contract to Henry Smith & Sons Company, 116 South Regester street, for the alterations and additions to its church building; cost about \$35,000; Alfred H. Taylor, architect, 11½ East Pleasant street.

Baltimore—Apartment-house.—D. Sterrett Gittings, Maryland Trust Building, Calvert and German streets, has awarded contract to P. J. Cushen & Co., 30 West Franklin street, for the remodeling of building at northeast corner St. Paul and Centre streets; electric wiring and fixtures; sanitary plumbing and heating system will be installed.

Baltimore—Dwelling.—Alexander Russell of Burns & Russell, 1103 American Building, Baltimore and South streets, has purchased lot at Roland Park and will erect dwelling on site, which is 69x183 feet.

Baltimore—Dwellings.—Wm. F. Shinnick & Co., 1725 Thames street, will erect five dwellings on Lendenhall street near Cross street; two stories, 13x15 feet; cost \$5000.

Baltimore—Dwellings.—John G. Maier's Sons, 153 North Gay street, have awarded contract to Frank Novak, 900 North Duncan street, for the construction of 15 dwellings on Federal near Chester street; two stories, 13x15 feet; cost \$14,000.

Baltimore—Dwelling.—Milton H. Franck, 1513 West Fayette street, will erect dwelling on Garrison avenue, Walbrook (a suburb of Baltimore) to cost about \$4000.

Baltimore—Dwellings.—James Doyle, 421 West Franklin street, will erect 15 dwellings on Windsor avenue, Walbrook (a suburb of Baltimore); two stories high, with 16 foot fronts.

Baltimore—Courthouse.—The municipal Board of Awards has awarded contract to Wm. Ferguson & Bro., 214 Clay street, at their bid of \$127,051, for the repair of fire damage to the courthouse; Wyatt & Nolting, architects, Builders' Exchange Building, 2 East Lexington street.

Baltimore—Bank.—Wm. H. Porter & Son, 505 East Forrest street; J. H. Miller, 110 Dover street; Felix McGinnity, 827 East Chase street; T. B. Stanfield & Son, 109 Clay street; Morrow Bros., 212 Clay street, and Joseph Schamberger, 2215 East Baltimore street, are estimating on proposed bank building at Broadway and Gough street for the Provident Savings Bank, Saratoga and Howard streets; one story, 27x53 feet; brick with limestone trimmings; tin roof; sanitary plumbing. Electric wiring and fixtures and heating system not in contract; Sperry, York & Sawyer, architects, Calvert Building, Fayette and St. Paul streets; bids to be in June 12.

Baltimore—Dwelling.—J. E. Greiner, Mt. Royal Station, will erect dwelling at Roland Park (a suburb of Baltimore); two and one-half stories high, 50 feet front; brick with limestone trimmings; tin roof; electric wiring and fixtures; sanitary plumbing; heating system. Roland Park Company, Roland Park, Md.; A. F. West, Hoffman Building, 11 East Lexington street; Gladfelter & Chambers, 2072 Woodberry avenue; Edward Brady & Son, 1109 Cathedral street; John Cowan, 106 West Madison street, and J. H. Walsh & Bro., 406 South Charles street, are estimating on the construction; bids to be in June 14; Elliott & Emmart, architects, 1101 Union Trust Building, Charles and Fayette streets.

Baltimore—Apartment-house.—H. F. Hill, 1200 Madison avenue, has awarded contract to A. K. Boteler, 1395 Shields alley, for the alterations and additions to building at 1208 Madison avenue, converting it into an apartment-house. Hot-water heating will be installed.

Manufacturing Buildings and Other Enterprises.

Baltimore—Real Estate.—The Auchenoroly Company has been incorporated, with an authorized capital stock of \$80,000, to deal in real estate, by George C. Morrison, 220 East North avenue; J. Morris Orem, 13 Clay street; Lester L. Stevens, John S. Stearns and J. Ralph Morrison. The company will develop a tract of land recently purchased near Druid Hill Park.

Baltimore—Concrete-block Machinery.—The Fisher Hydraulic Stone & Machinery Co. has been incorporated, with an authorized capital stock of \$100,000, to manufacture and sell concrete-block machinery, by Daniel A. Leonard, Willis H. Fisher and Charles F. Massey, all at 39 Builders' Exchange Building, 2 East Lexington street, Baltimore, Md.; Wm. P. Lyons and John P. Bullington, Memphis, Tenn. This company takes over the business of the Fisher Hydraulic Stone System of Mt. Gilead, Ohio.

Baltimore—Bottle-stopper Factory.—J. H. Miller, 110 Dover street; George Bunnecke & Sons, 305 St. Paul street; Henry S. Rippel, 7 Clay street; Thomas L. Jones & Son, 410 West Saratoga street; Henry Smith & Sons Company, 116 South Regester street; John Hiltz & Son, 3 Clay street, and Sandford & Brooks, 715 North Calvert street, are estimating on group of buildings for the Crown Cork & Seal Co., Guilford avenue and Oliver street, to be located at Canton (a suburb of Baltimore). It includes power-house one story high, 60x60 feet; two-story factory building,

50x150 feet, of mill construction, and one-story storage warehouse, 50x150 feet, of mill construction; bids to be in June 10; Charles M. Anderson, architect, 324 North Charles street.

Baltimore—Straw-hat Factory.—John A. Sheridan Company, 321 North Holliday street; Morrow Bros., 212 Clay street; George Bunnecke & Sons, 305 St. Paul street; E. D. Preston, 140 West Fayette street; R. H. Frazier & Sons, 220 St. Paul street; Frank T. Maguire, Gay and Pratt streets; Thomas P. Johns, Eutaw and McCulloh streets, and the Woodruff-McLaughlin Company, 100 East Lexington street, are estimating on construction of factory for M. S. Levy & Sons, Paca and Lombard streets, to be located on King street near Paca street; five stories, 60x87 feet; brick with stone trimmings; steel girders and columns; slag roof; sanitary plumbing. Electric wiring and fixtures and heating system not in contract; Louis Levi, architect, 701 Union Trust Building, Charles and Fayette streets. Bids to be in June 8.

Baltimore—Rackhouse.—The Monticello Dilling Co., 409 North Holliday street, has awarded contract to Charles A. Sheling, 342 North Calvert street, for the construction of rackhouse. Structure to be nine tiers high, 84x86 feet; brick with stone trimmings; slag roof; 20 galvanized-iron skylights; steam-heating system; elevators.

Baltimore—Engine-house.—The Kingan Packing Association, 355 North street, will erect engine-house at 351, 356 and 358 North Holliday street. The site is about 45x90 feet.

Baltimore—Medical Company.—The Hamilton Medical Co. has been incorporated with an authorized capital stock of \$5000 by Ira E. Hamilton, 1801 East Lafayette avenue; Fanny G. Hamilton, J. H. B. Hurst, Catharine R. Hurst and Peter J. Campbell.

Subbids Wanted.

Mention of contractors wanting subbids on construction work and material will be found, when published, in the "Machinery Wanted" column on another page under the heading of "Building Equipment and Supplies."

ALABAMA.

Altoona—Coal-mining.—Reports state that George Van Zandt of Chicago, Ill., will arrange for the development of coal properties in Etowah county.

Athens—Ice and Cold-storage Plant.—Henry Christensen is reported as completing arrangements for the erection of ice and cold-storage plant.

Birmingham—Gasholder, etc.—The Birmingham Railway, Light & Power Co. is installing gasholder with a capacity of 700,000 cubic feet at a cost of \$60,000. The company will also install coal-handling apparatus at power-house at a cost of \$100,000, for which contract has been let.

Blanche—Water-power-Electrical Plant.—It is reported that H. T. Henderson of Durango, Cal., will build a water-power plant on Little river. It is also stated that a dam and tunnel will be required.

Clanton—Fertilizer Factory and Warehouse.—It is reported that the Chilton county branch of the Southern Cotton-Growers' Association is arranging for the erection of fertilizer factory and warehouse.

Elrod—Cotton Gin and Saw-mill.—M. I. Harper of Reform, Ala., is reported as to erect cotton gin with a daily capacity of 25 bales; also saw-mill.

Flourville—Shoe Factory.—J. J. Snyder of Ohio has secured building and is installing machinery for the manufacture of shoes.

Gadsden—Stone and Hollow-ware Works.—The A. & J. Manufacturing Co. has increased capital stock from \$10,000 to \$25,000.

Gadsden—Car Works.—It is reported that the Alabama Great Southern Railroad will purchase and operate the local car shops. A. Griggs, Birmingham, Ala., is superintendent.

Huntsville—Flour and Feed Mill.—Spring City Milling Co., reported incorporated last week with \$20,000 capital stock, will operate flour mill with a daily capacity of 100 barrels and 500-bushel feed mill. G. P. Baker is president; I. D. Baker, vice-president, and Henry Hoppenjans, secretary-treasurer. Machinery has been purchased.

Montgomery—Ice Plant.—Alexander Cawthon and Robert Olive, it is reported, will establish ice plant.

Montgomery—Laundry.—The Dixie Laundry Co. has been organized with C. Holt Smith, president; C. R. Bricken, vice-president; Eugene O'Brien, secretary-treasurer,

and C. W. Cooper, manager. The company has purchased and will operate the plant of the Alabama Steam Laundry, located at 112 Monroe street.

Palos—Coal Mines and Coke Ovens.—The Sloss-Sheffield Steel & Iron Co. is arranging for the development of coal mines in Jefferson and Walker counties. The most modern machinery will be installed, a coal tippie and washer erected and other improvements made at a cost of about \$150,000, which, when completed, will give the plant a daily output of 1500 tons. Later it is proposed to construct coke ovens; general offices Birmingham, Ala.; New York office, 28 Nassau street.

ARKANSAS.

Bates—Lumber Company.—The Ingham Lumber Co. has incorporated with \$20,000 capital stock. S. K. Ingham is president; W. E. Ingham, vice-president, and C. F. McKnight, secretary-treasurer.

Benton—Canning Factory.—Benton Canning Co., reported incorporated last month, will erect building 29x40 feet and equip for a daily capacity of from 1000 to 4000 cans of tomatoes. A. J. Elleman is president; L. T. Couch, vice-president, and W. D. Couch, secretary-treasurer.

Bentonville—Casket Factory.—The Benton County Casket Co. has incorporated with \$10,000 capital stock to manufacture caskets. F. W. Brown is president; J. D. Cany, vice-president; J. W. Perrin, secretary, and Frank Van Antwerp, treasurer.

Clarendon—Ice Plant.—T. T. Bateman, J. Wheelock and J. B. Stephens are organizing company to establish six-ton ice-making plant.

Eureka Springs—Mining and Milling Company.—Incorporated: The Arkansas, Kansas & Texas Mining & Milling Co., with \$100,000 capital stock. F. M. Ramsey is president; C. W. Henderson, vice-president; A. T. Riley, secretary, and C. E. Goodwin, treasurer.

Fort Smith—Concrete-block Factory.—Joe Bertino, G. W. Harper and J. B. Smedley have incorporated the Fort Smith Hollow Stone Concrete Co. with \$10,000 capital stock.

Fort Smith—Ice and Cold-storage Plant.—The Fort Smith Ice & Cold Storage Co. has been organized with \$80,000 capital stock to operate ice and cold-storage plant. D. J. Young is president.

Huntington—Cold storage Plant.—Reports state that Jean Lake is erecting cold-storage plant, and will install two-ton refrigerating plant.

Little Rock—Lumbermen's Tools.—Reports state that Stocker Bros. of Saginaw, Mich., are investigating site with a view to removing factory for the manufacture of lumbermen's tools from Saginaw to Little Rock.

Pine Bluff—Commissioners of Sewer District No. 8 have let contract to Robinson Bros. Plumbing Co. at \$12,105 for constructing three and one-quarter miles of sewer.

Pine Bluff—Sand and Ferry Company.—The Pine Bluff Sand & Ferry Co. has been incorporated, with \$9000 capital stock. W. T. McFadden is president; Mary M. Clegg, vice-president, and Clarence E. Philpot, secretary-treasurer.

Proctor—Hoop Factory.—Proctor Cooperage Co., reported incorporated last week with \$15,000 capital stock, will occupy two-story building 75x40 feet, and the plant will have a daily capacity of 40,000 hoops. Wm. Chittenden is president, and Winston Crenshaw, vice-president.

Springdale—Ice and Electric-light Plant.—M. Focht of Kansas City, Mo., it is reported, contemplates erecting ice and electric-light plant.

FLORIDA.

Apalachicola—Townsite, etc.—The St. Joseph Land & Development Co., reported incorporated last week under Quincy, Fla., with \$100,000 capital stock, has purchased through Brobston, Fendick & Co., Brunswick, Ga., 193,000 acres of land in Franklin and Liberty counties, involving an expenditure of about \$1,000,000. It is proposed to locate a townsite at St. Joseph Bay, build a bridge across the Apalachicola river about one-half mile from Apalachicola, Fla.; extend the Apalachicola & Northern Railroad, etc. R. H. Hemphill, general manager, can be addressed care Planters' Hotel, St. Louis, Mo.

Jacksonville—Paint Factory.—Dozier & Gay Paint Co. has been incorporated, with \$50,000 capital stock, to manufacture and deal in paints. John H. Gay is president; Screven Dozier, vice-president and treasurer, and Henry G. Aldred, secretary. A building 40x107 feet will be erected.

Jacksonville—Fertilizer Factory.—The Southern Fertilizer & Chemical Co. has been incorporated at 329 Plant street, Newark, N. J., with \$150,000 capital stock, by A. J. Moore of Newark, N. J.; L. E. Crusel and S. G. Bon Durant of New York, N. Y.

Live Oak—Lumber Company.—Bradford Lumber Co. has been incorporated, with \$15,000 capital stock, by C. J. McGeehee, C. D. Blackwell and S. Z. Townsend.

GEORGIA.

Acworth—Pyrites Mining.—Southern Star Mining Co., previously reported as building \$20,000 plant for developing iron-pyrites properties, will erect buildings 80x100 feet, 20x42 feet and 16x20 feet, and equip for a capacity of 100 tons of iron pyrites a day of 24 hours. The company is also operating a 10-stamp mill at gold mines.

Atlanta—Railway Devices.—Atlanta Equipment & Manufacturing Co. has been incorporated, with \$2500 capital stock, by R. E. Park, H. C. Stockdell, E. H. Thornton, G. W. Parrott, Thomas Eggleston and others, to deal in railway devices of all kinds.

Barnesville—Cotton Mill.—H. R. Robertson of Macon, Ga., representing capitalists of that city, has purchased the Aldora Mills for \$65,000. The purchasers will form a stock company to generally improve the plant and add looms for weaving. Heretofore only yarns have been manufactured, the equipment being 9016 spindles.

Columbus—Publishing.—C. I. Groover, Mary L. Groover and C. M. Davis have incorporated the Enquirer-Sun Co. with \$25,000 capital stock to continue the publication of the Enquirer-Sun, a daily newspaper.

Cordele—Electric-light and Power Plant.—Citizens' Electric Light & Power Co. has had plans prepared for the erection of brick building, to be one-third larger than present plant.

Cordele—Cottonseed-oil Mill and Fertilizer Factory.—The Central Oil & Fertilizer Co., reported last week as organized to operate cottonseed-oil mill and fertilizer factory, will erect building and equip as three-press oil mill and for a capacity of 10,000 tons of fertilizers; capital stock \$55,000. R. L. Wilson is president and treasurer, and Jas. H. Taylor, secretary.

Ellijay—Marble Quarrying.—Shippin Bros. Lumber Co. and the North Georgia Lumber Co. of Knoxville, Tenn., have consolidated and will operate as Shippin Bros. Lumber Co. It is stated that the company will arrange for the development of marble properties which it owns near Ellijay. Shippin Bros. were previously reported as to establish electric-light plant.

Montezuma—Cotton Compress.—E. B. Lewis, W. M. Lewis, W. L. McKenzie, J. Settegast, J. E. DeVaughn and others, reported last month as interested in the erection and operation of a cotton compress, will organize company with \$25,000 capital stock. Machinery has been purchased.

Monticello—Electric-light Plant, Water-works and Sewerage System.—City has voted affirmatively the proposed \$30,000 bond issue for the construction of electric-light plant, water-works and sewerage system. Address The Mayor.

Savannah—Reservoir.—City is reported as considering the building of a reservoir at the water-works. Address The Mayor.

Savannah—Steam Bakery.—It is reported that a steam bread bakery will be established, and John Derst can probably give information.

Savannah—Wood-preserving Plant.—Reports state that J. S. Blaine contemplates establishing plant for preserving and hardening wood by a special process, and will make the city a proposition for the old water-works plant for this purpose.

Tallulah—Silk Mill.—It is reported that Louis B. Magid is considering plans for the erection of a silk mill, to be operated by water-power from the Tugaloo river, riparian rights on which he purchased recently.

Waynesboro—Ice and Fuel Company.—Chartered: Waynesboro Ice & Fuel Co., with \$10,000 capital stock, by H. C. Moshell and S. M. McKendree.

Winokur—Saw and Shingle Mill.—Reports state that J. F. Bailey of Valdosta, Ga., and G. P. Smith of New Orleans, La., has secured site on which to erect saw and shingle mill, which will be equipped for a daily capacity of 15,000 feet.

KENTUCKY.

Hopkinsville—Furniture Factory.—Reports state that H. A. Gardner of Vincennes, Ind., is investigating with a view to removing furniture factory to Hopkinsville.

Hopkinsville—Reservoir.—Chas. Hermann, Louisville, Ky., is engineer in charge of the construction of proposed 170,000-gallon reservoir for the Hopkinsville Water Co., W. T. Tandy, president, and F. W. Morris, superintendent. About \$7000 will be invested.

Liberty—Flour Mill.—Judd Phillips is or-

ganizing stock company to build a 40-barrel flour mill.

Louisville—Coal Company.—The Laurel River Coal Co. has been incorporated, with \$25,000 capital stock, by Benjamin F. Gardner, Coleman R. Robinson, Kenneth U. McGuire and others.

Louisville—Realty Company.—The Central Realty Co. has been incorporated with \$10,000 capital stock by Robert G. Gordon, R. R. Settle and J. M. Chilton.

Newport—Sewerage System.—City will issue \$35,000 of bonds for constructing additional sewerage system, previously mentioned; John Hemholt, mayor.

Newport—Improvement Company.—J. W. Schneider, J. G. Feth and C. E. Zimmerman have incorporated the Clifton Improvement Co., with \$25,000 capital stock.

Newport—Gas Plant.—Franchise will be let June 8 for supplying the city with gas for a period of 20 years; Peter J. Krebs, city clerk.

Owensboro—Candy Company.—The Vick-Miller Candy Co. has been incorporated, with \$5000 capital stock, by W. S. Vick, Robert Miller and L. C. Field.

LOUISIANA.

Lake Charles—Electric-light and Power Plant.—The city will vote, as previously mentioned, on June 27 to issue \$75,000 of bonds for the construction of electric-light and power plant. If bond issue carries an election will then be held to determine whether municipal plant will be installed or contract closed with private corporation or firm to furnish light and power on a contract basis for a term of years. If issue does not carry the matter of contract will be considered; C. H. Winterhalter, mayor.

New Orleans—Shoe Factory.—W. J. Martinez & Bros. will erect seven-story factory building, which will be equipped for increasing the present capacity from 600 to 2500 shoes daily. About \$100,000 will be invested.

New Orleans—Coffee Mill.—Cage, Drew & Co., Ltd., has increased capital stock from \$50,000 to \$100,000. The company has recently installed a new plant with the latest-improved coffee-roasting machinery, and has secured a four-story building, 60x175 feet, into which it will move plant, increasing the capacity.

Plaquemine—Lock Work.—W. O. Burton & Co. of New Orleans, La., have contract for completing the inner approach to the Plaquemine lock. About \$110,000 will be expended.

Plaquemine—Ice Plant.—Plaquemine Consumers' Ice Co. has been incorporated with \$20,000 capital stock to operate a 20-ton ice plant. Building will be erected at once. Charles Martin is president; H. Nedler, vice-president, and H. J. Levy, secretary-treasurer.

Robeline—Electric-light Plant.—It is reported that the Shand Lumber Co. is installing equipment for lighting plant and town by electricity.

MARYLAND.

Bayview—Water-power-Electrical Plant.—Reports state that B. F. Groff, representing William T. Warburton of Elkton, Md., has purchased at \$13,500 the mills and water-power of Gilpin's falls near Bayview. It is proposed to develop this water-power and build an electric plant at the foot of the falls for transmitting electricity for light and power to Elkton, Rising Sun, Northeast and Chesapeake City. A steel flume will be laid from the present race of the mill down the steep incline to the foot of the falls, where the water will be delivered to two turbine wheels, the dynamo to be connected direct to the wheels.

Glen Morris—Supply Company.—The Glen Morris Supply Co. of Glen Morris and Glynndon, Md., has been organized with John G. Coryell, president.

Hamilton—Real Estate.—Berwick Land Co. has been incorporated, with \$30,000 capital stock, by John H. Tames, Charles G. Tames, Bradley K. Purdam, Frank C. Purdam and Amelia Hammick. The company has purchased 40 acres of land near Hamilton, which will be divided into building lots.

Loreley—Real Estate.—Edward C. Carrington, Jr., 110 East Lexington street, Baltimore, Md., representing a syndicate, is negotiating with H. L. Horton & Co. of New York, N. Y., relative to the purchase of 1500 acres of land at Loreley Station for development as manufacturing sites.

MISSISSIPPI.

Centerville—Sauce Factory.—The Red Sauce Pepper Co., reported last week as incorporated with \$30,000 capital stock to continue an established business, will erect one-and-

one-half-story building, 100 feet square, and equip for a capacity of 50,000 dozen sauces and relishes. L. W. Dutro of Memphis, Tenn., is president; R. E. Hine of Centerville, vice-president and general manager, and A. Goodman of Memphis, Tenn., treasurer.

Clarksdale—Cotton Compress.—The People's Compress Co. has completed organization with F. D. Williams, president; E. P. Peacock, vice-president, and W. E. Meek, secretary-treasurer. Site has been secured on which to erect plant; capital stock \$50,000.

Ethel—Cotton Gln.—R. J. Bell, it is reported, will erect cotton gln.

Hattiesburg—Electric-supply Company.—William T. Spranley, L. C. Reed and others have incorporated the Hattiesburg Electric Supply Co. with \$10,000 capital stock.

Jackson—Cottonseed-oil Refinery.—The Mississippi Crushers' Association, reported in March as organized to build a cottonseed-oil refinery and by-product plant at a cost of about \$500,000, will hold a meeting in June to consider the question of selecting site. It is stated that Jackson, Yazoo City, Greenwood and Meridian, Miss., are mentioned as probable locations. Mr. Madden of Yazoo City, Miss., is chairman of the committee.

Vicksburg—Levee Work.—Capt. George M. Hoffman of the corps of engineers in charge of the third Mississippi river engineers' district let contracts as follows for 1,128,900 yards of levee work in the lower Yazoo and upper Tensas levee districts: J. K. Jeffries of Memphis, Tenn., 435,000 yards in the upper Yazoo district; John Scott & Sons of St. Louis, Mo., 239,000 yards in the Rosedale district; Lawrence Bros. of Friarpoint, Miss., 190,000 yards of topping at Arkansas City, Ark., and 25,000 of banquettes work at Luna, Ark., and Helgason Bros. of Vicksburg, Miss., the Opossumcut enlargement, some 120,000 yards.

MISSOURI.

Cape Girardeau—Reclaiming Marsh Lands. George S. Hanford of Campbell, Mo., is organizing company for reclaiming the overflow lands in the district of White Water and Castor rivers. It is proposed to build a ditch system to carry away the overflow water.

Carthage—Mining and Milling Company.—Joseph L. Moore, John P. Magee and J. A. Mitchell have incorporated the Old Faithful Mining & Milling Co., with \$50,000 capital stock.

Kansas City—Pumping Station.—Joseph H. Stone has contract at \$17,000 for rebuilding the Quindaro pumping station so as to make it fireproof.

Kansas City—Incorporated: Kansas City Roller Co., with \$2000 capital stock, by Milard F. Bingham, E. A. Neel and Hugh C. Ward.

Kennett—Drug Factory.—J. R. Black Medicine Co. has been incorporated, with \$6000 capital stock, by T. E. McPherson, J. P. Dummire, J. R. Blackmore and others.

Keysville—Water-works.—Town has voted affirmatively the proposed issuance of \$11,500 of bonds for the construction of water-works. Address Town Clerk.

Neosho—Ice Plant, Water-works and Electric-light Plant.—It is reported that the Neosho Ice Co. contemplates enlarging ice plant. It is also stated that the company will establish water-works and electric-light plant.

New Madrid—Water-works.—G. Jaeger of Rich Hill, Mo., has contract at \$17,945 for the construction of water-works previously reported. A building 25x35 feet will be erected; Owen Ford, 710 Security Building, St. Louis, Mo., engineer.

New Madrid—Ice Plant.—Reports state that A. J. Hanan will erect ice plant on site recently purchased.

Ozark—Water-works and Sewerage System. City has voted the proposed bond issue for the purchase of water-works and the construction of sewerage system. Address The Mayor.

Ozark—Electric-light Plant.—S. E. Branson has secured a 20-year electric-light franchise.

Sedalia—Water-works, Electric-light and Gas Plants.—The United Water, Gas & Electric Co. is being organized to take over and operate the plants of the Sedalia Water & Light Co. and the Sedalia Gas & Fuel Co., and it is stated that about \$400,000 will be expended in improvements; W. B. Smith Whaley & Co., Boston, Mass., engineers in charge.

Springfield—Oil Wells.—The Queen City Oil Co. has incorporated, with \$50,000 capital stock, to drill for oil; incorporators, J. C. Dysart, J. P. Cook and T. J. DeLaney.

St. Louis—Publishing.—Incorporated: Star-Chronicle Publishing Co., with \$500,000 capital stock, by Nathan Frank, Frank W.

Hunsicker, John M. Hertel, August Frank of St. Louis, Milton A. McRae, J. C. Harper, Robert F. Paine of Cincinnati, Ohio, and associates, to print and publish newspapers, magazines, etc.

St. Louis—Drug Factory.—Victor Medicine Co. has been incorporated, with \$50,000 capital stock, by Herman F. Bigot, Walter P. Bigot and Gustav E. Bigot, to manufacture and deal in medicines.

St. Louis—Realty and Quarry Company.—Incorporated: Star Realty & Quarry Co., with \$200 capital stock, by W. F. Heideman, A. E. McAlhney and Adolph E. Methudy.

St. Louis—Distilling Company.—C. H. Wittenberg Distilling Co. has been incorporated, with \$100,000 capital stock, by Chas. H. Wittenberg, Herman Lembach and Leonora Wittenberg.

NORTH CAROLINA.

Arden—Electric-power Plant.—The Buck Shoals Co. has been incorporated, with an authorized capital stock of \$50,000, by Joseph J. McCloskey, J. W. Sluder and Hugh La Barbe, all of Asheville, N. C., to operate power plant, etc.

Charlotte—Pine-bending Works.—Chartered: Pipe Bending Machine Co., with \$100,000 capital stock, by L. W. Conway and others.

Concord—Cotton Mill.—The Gibson Manufacturing Co. contemplates making some additions to its plant: present equipment is 16,640 spindles and 519 looms.

Durham—Roofing Factory.—Chartered: The Piper Roofing Co., with \$10,000 capital stock, by J. A. Piper, R. E. Piper and A. G. Elliott, to manufacture roofing material and to contract for roofing.

Eberman—Lumber Company.—A. L. Tyson, Alan A. Herr and Charles F. Hager have incorporated the Penn Lumber Co. with \$15,000 capital stock.

Gastonia—Tin Mining.—The Southern Tin Co., previously reported incorporated with \$1,000,000 capital stock to mine, smelt and deal in tin, has completed organization with E. Y. Webb, president; A. G. Mangum, vice-president; John F. Holland, secretary, and S. N. Boyce, treasurer.

Greensboro—Publishing.—Industrial Publishing Co. has been incorporated, with an authorized capital stock of \$50,000, by Tyree Glenn, A. M. Millican, Harry Skinner, Spencer B. Adams and associates, for the publication of a republican daily paper.

Greensboro—Publishing.—Incorporated: The Tar Heel Publishing Co., with an authorized capital stock of \$50,000, by Spencer Blackburn of Wilkesboro, N. C.; B. S. Robertson, Haw River, N. C.; R. A. Mills of Winston-Salem, N. C., and associates.

Millboro—Chair Factory.—Millboro Chair Co., previously reported incorporated with \$500 capital stock to manufacture chairs, will erect building 80x36 feet and equip for a capacity of 200 chairs. J. W. Pugh is president; R. H. Shaw, treasurer.

Newton—Hosiery Mill.—The Newton Hosiery Mills is reported to have decided upon an extensive enlargement to its plant.

Oxford—Vehicle Works, etc.—Chartered: The Harris-Glenn Body Co., with \$3000 capital stock, by I. E. Harris, W. B. Ballou, W. B. Glenn and associates, to manufacture and sell buggy bodies, wheelbarrows, etc.

Polkton—Plantation Company.—Chartered: The Homestead Plantation Co., with an authorized capital stock of \$25,000, by M. W. Arrowood and others, to purchase and cultivate farming lands.

Raleigh—Police Signal and Telephone System.—City is arranging for the installation of police signal and telephone system, etc. Address W. A. Cooper, chairman police committee.*

Raleigh—Street Improvements.—City will let contract for excavating and grading Saunders street, for which \$3000 is available. Address The Mayor.

Spray—Cotton Mill.—The German-American Company will erect its proposed mill building one story high, arranged to double later on. Contracts have been awarded for the cotton machinery and part of the other equipment. Lockwood, Greene & Co. of Boston, Mass., and Greenville, S. C., are the engineers in charge. The German-American Company was referred to last month as having decided to build for 12,000 spindles and 360 looms to start with. Its capital stock is \$500,000. A 500 to 600-horse-power steam engine and boilers will be purchased. Brick has been contracted for, and cement will be bought in open market.*

Wadesboro—Silk Mill.—The Wadesboro Manufacturing Co. will build an additional silk mill, to be equipped for spinning. Building to be of brick, 45x200 feet in size. Present plant, which throws silk, has 13,000 spindles in position. It is said that contracts for the new plant have been awarded. George Sin-

gleton, W. Blackwell street, Dover, N. J., controls this company.

SOUTH CAROLINA.

Bishopville—Water-works.—Town has completed arrangements for the construction of water-works for which bonds were previously reported voted. Bids will be received until July 17; Chas. C. Wilson, Columbia, S. C., consulting engineer, and J. C. Rhame, clerk.*

Charleston—Fertilizer Factory.—The Planters' Warehouse & Fertilizer Co. has been organized, with \$25,000 capital stock, and privilege of increasing to \$500,000. The company has purchased property on the Ashley river about one-half mile from Charleston, on which it is probable it will locate fertilizer factory, warehouses for storing cotton and merchandise, etc. F. W. Wagener is president; Wm. H. Welch, vice-president, and F. F. Sullivan, secretary-treasurer.

Charleston—Mill Agents.—The Textile Manufacturing & Commission Co. is the correct title of the corporation referred to last week as chartered with capital stock of \$15,000. It will not manufacture, but will act as direct mill agent. W. W. Wagner and James P. Gibbs, 37 Pinckney street, compose the company.

Charleston—Oyster and Vegetable Cannery. It is reported that William Falt will establish oyster and vegetable cannery.

Columbia—Plumbing Company.—The Carolina Plumbing Co. has been incorporated, with \$5000 capital stock. W. A. Clark is president and treasurer; T. H. Meighan, vice-president, and John A. Civil, secretary.

Darlington—Ice Plant, etc.—Chartered: Carolina Ice & Packing Co., with \$20,000 capital stock. W. D. Coggeshall is president and treasurer; J. R. Coggeshall, secretary, and A. C. Coggeshall, vice-president. The W. D. Coggeshall Company was previously reported to establish 10-ton ice plant.

Darlington—Sewerage System.—City has awarded contract to Ebaugh & Ebaugh, Greenville, S. C., for constructing 20 miles of sewer system previously mentioned. J. L. Ludlow, Winston, N. C., is engineer in charge.

Dillon—Storage Company.—Wade Stackhouse, R. P. Stackhouse, J. S. Thompson and W. P. Bethea have incorporated the Dillon Storage Co. with \$3000 capital stock.

Georgetown—Real Estate.—W. D. Morgan and associates are organizing the Georgetown Land & Development Co. with \$150,000 capital stock.

Greenville—Street Paving.—City has voted affirmatively the proposed bond issue for paving streets. Address The Mayor.

Greenville—Water-power-Electrical Plant.—Saluda River Power Co., previously reported incorporated with \$500,000 capital stock and A. G. Furman, president, to develop the water-power of the Saluda river five miles from Greenville, has let contract for the construction of dam to J. F. Grandy & Son. The dam will be of concrete, 38 feet high, and develop 2500 horse-power for transmission by electricity. Lockwood, Greene & Co. of Boston, Mass., were mentioned in May as engineers in charge of the construction of plant.

Iva—Cotton Mill.—D. P. McBrayer of Anderson, S. C.; T. C. Jackson, W. P. Cook and W. T. Sherard of Iva have incorporated the Jackson Mills, with capital stock of \$200,000, for the purpose of building a cotton factory. Details not decided. Mr. McBrayer was reported several months ago as interested in a mill movement at Iva.

North Augusta—Pottery.—The Wood Pottery Co. has been incorporated with \$9000 capital stock by J. P. Wood and John Moore.

Sumter—Electric-light and Power Plant.—It is reported that J. E. Lilley and G. E. Shand of Columbia, S. C., will erect electric-light and power plant, and have applied for franchise.

Sumter—Ice Plant.—A. B. Stuckey, H. T. Edens and J. E. Schwerin have organized the Sumter Ice Consumers' Plant to erect and operate ice plant of 15 to 20 tons daily capacity.

Sumter—Electric-light and Power Plant.—It is proposed to grant franchise for the construction of an electric-light and power plant, and engineers are now investigating the feasibility of the project. Shand & Lafayer are the engineers in charge, associated with Wells & Lilly.

Timmons ville—Lumber Company.—B. D. Dargan and F. L. Willcox have incorporated the Timmons ville Lumber Co., with \$40,000 capital stock.

TENNESSEE.

Bear Spring—Land Company.—H. N. Leech, W. M. Brandon, T. J. Brandon, S. C. Lewis and J. W. Rice have incorporated the Cumberland River Land Co., with \$75,000 capital stock.

Chattanooga—Piers.—The Southern Railway Co. has let contract to B. H. Hardaway, Columbus, Ga., for constructing piers for bridge over the Tennessee river at Oates Island, referred to last week. Six piers of concrete will be constructed. Contract for the steel work and spans will be awarded later. Assistant Engineer Robert Lacy, Washington, D. C., will supervise the construction.

Chattanooga—Construction Company.—Chartered: Electric Construction Co., with \$10,000 capital stock, by R. H. Williams, Geo. D. Lancaster, Norris Headrick, Bruce Forshoe and Bartow S. Straug, to construct railroads, etc.

Chattanooga—Ink Factory.—Chartered: The Southern Printing Ink Co., by John Bannon, James Oscar Bannon, W. B. Swaney, Will H. Weatherford and Thos. H. Cooke, to continue the manufacture of printers' ink of all kinds, composition rollers, etc., which plant Mr. Bannon was reported in February as to establish with \$15,000 capital stock; office, 716 East 9th street.

Chattanooga—Refrigerator Factory.—The Keyser Manufacturing Co., reported last week as having purchased site on which to erect additional buildings, will erect a power plant 30x60 feet, equipped with a 14x36 Corliss engine and two 150-horse-power boilers; dry-kiln 20x110 feet and a five-story brick warehouse 60x120 feet. These improvements will double the present capacity of 75 refrigerators daily. Machinery has been contracted for.

Clarksville—Warehouse and Elevator Company.—Incorporated: Clarksville Warehouse & Elevator Co., with \$50,000 capital stock, by Jos. P. Dunlop, E. C. Morrow, Jos. A. Bollin, J. M. Neblett and Thomas Binns.

Cleveland—Woolen Mill.—The Cleveland Woolen Mills is reported to begin at once the rebuilding of its plant destroyed by fire last week; the mill was not entirely destroyed; \$25,000 was the damage.

Dickson—Stone Works.—W. M. Shipman, H. L. Rivers, G. A. Slayden of Dickson, J. D. Parish and W. C. Thorbas of Chicago, Ill., have incorporated the Treswell Concrete Stone Co.

Franklin—Water-works Improvement.—City has voted affirmatively the issuance of \$15,000 additional bonds for constructing water-works. Address The Mayor.

Johnson City—Building Material.—Johnson City Coal & Lumber Co. is erecting building, 50x150 feet, which will be equipped for a daily capacity of 20,000 to 30,000 feet of building material; about \$18,000 will be invested. Contracts have all been let. This enterprise was referred to last week.

Knoxville—Woolen Mill.—The Knoxville Woolen Mills has begun the erection of an additional building—pattern loom and designing room. It also contemplates installing the electrical drive in place of the present rope drive.

Lenoir City—Light and Power Plant.—Wm. Glass, R. M. Calloway, G. W. Strausberry, J. A. Nelson and J. E. Calloway have incorporated the Lenoir City Light & Power Co. with \$2500 capital stock.

Memphis—Dowel-pin Factory.—It is reported that the Jackson Dowel Co. of Jackson, Tenn., will establish branch plant for the manufacture of dowel pins. It is stated that the company is also considering the removal of entire plant from Jackson to Memphis.

Memphis—Cold-storage Plant.—It is reported that J. N. Oliver will erect a two-story building 62x126 feet of steel and concrete, which will be equipped as cold-storage plant; cost \$40,000.

Memphis—Biscuit Factory.—Work on the four-story building, 180x37 feet, which is being erected by the Southern Biscuit Works at a cost of \$100,000, will shortly be completed. B. M. Gwathmey of Richmond, Va., is president of the company, which is capitalized at \$150,000.

Memphis—Ice Plant.—Bohlen-Huse Company has had plans prepared by Shaw & Pfeil for the erection of two-story addition to ice plant, which will be equipped for doubling the capacity. About \$15,000 will be expended.

Memphis—Real Estate.—Broadway Land Co. has been incorporated with \$50,000 capital stock by W. K. Burton, W. A. Percy, W. W. Fairies, A. W. Ketcham and Gilbert D. Raine, Jr.

Nashville—Boat Company.—J. B. Haynie, W. H. Cooper, Dr. E. T. Brown, Dr. W. J. Sneed and others have incorporated the Little Ben Boat Co. with an authorized capital stock of \$5000 to operate boats for pleasure and also do a packet business.

Nashville—Cotton Mill.—The report of last week as to changes in machinery by the Tennessee Manufacturing Co. was not correct. The company is endeavoring to secure

sufficient help to operate one of the mills, but nothing is being contemplated as to improvements.

Nashville—Steam-heating Plant, etc.—Albert M. Akers has purchased the franchise of the Nashville Steam Heating Co. for steam-heating plant and conduit system for telegraph and telephone wires, etc.; about \$250,000 will be invested.

Nashville—Grain Elevator.—Harsh Bros. & Co. are receiving bids for the erection of a grain elevator 100 feet high; both wooden and steel are being considered. A double track will be built to the elevator, and both tracks can be unloaded at one time; grain to be dumped in bulk into a sink and car carried by conveyors to the foot of elevator, which will have two grain hoists. A separate sink will be installed for receiving grain from wagons, weighing it automatically and conveying to foot of elevator. A 100,000-bushel hopper scale will also be installed.

Newbern—Mercantile.—J. L. Rosenbloom, S. D. Rosenbloom, Victor Zieff and others have incorporated as Rosenbloom Bros. Company to continue an established business; capital stock \$20,000.

Parsons—Improvement Company.—Incorporated: Parsons Improvement Co., with \$3000 capital stock, by L. A. Rains, J. U. Speer, L. H. Burke and others.

Quitto—Coal Mines and Oil Wells.—It is reported that the Kerrville (Tenn.) Coal, Oil & Inspecting Co. has leased 10,000 acres of coal and oil lands in Tipton and Shelby counties, and will arrange at once for its development. A prospecting outfit consisting of an oil drill of 2000 feet capacity has been ordered.

TEXAS.

Ablene—Hardware Company.—Boone-Miller Hardware Co. has been incorporated, with \$10,000 capital stock, by E. H. Boone, John Mueller and C. H. McDaniel.

Ballinger—Drug Company.—Walker Drug Co. has been incorporated with \$15,000 capital stock by Sam Sparks, J. A. Walker and J. N. Adams.

Bay City—Rice-mill Improvements.—The Colorado Valley Rice Milling Co. has let contract for machinery for increasing the capacity from 600 to 800 barrels daily.

Beaumont—Vehicle Works.—It is reported that Alex Feigelson will erect four-story brick building, which will be equipped for increasing the capacity of vehicle works.

Bonham—Steel Bridges.—M. S. Hosie, Jr., Dallas, Texas, is preparing plans for two steel bridges 50 and 60 feet, respectively, reported last week to be built across Sulphur creek between Bonham and Ladonia, Texas; cost \$1600. Pat Henry is county clerk.

Burkeville—Oil and Mineral Lands.—C. C. Conroy, E. T. Montgomery and C. C. Cade have incorporated the Farmers' Oil & Mineral Co., with \$50,000 capital stock.

Columbus—Electric-light and Power Plant. Columbus Light Co. has been incorporated with \$10,000 capital stock by J. W. Towell, Carey Shaw and Josiah Shaw to operate light and power plant.

Corsicana—Heating Plant.—Kenneson Bros. of Dallas, Texas, have contract at \$8800 for installing heating apparatus in new courthouse and jail.

Cuero—Hosiery Mill.—The Cuero Manufacturing Co., recently reported incorporated with capital stock of \$5000, has completed the equipment of plant and will manufacture hosiery, overalls, etc.

Dallas—Printing Plant, etc.—Reports state that the Fulton Bag & Cotton Mills, Atlanta, Ga., has secured building which will be equipped for cutting, sewing and printing burlap bags.

Dallas—Construction Company.—The Dallas General Construction Co., reported incorporated last week with \$10,000 capital stock, will act as contractors and engineers. John A. Sinclair is president; A. O'Rourke, vice-president, and Owen Hughes, secretary-treasurer; office, 503-4 Juanita Building.

Dallas—Grist Mill and Cotton Gin.—Dixie Mill & Gin Co. has been incorporated, with \$25,000 capital stock, by R. F. McNew, H. L. McNew and C. O. Roane, to operate grist mill and cotton gin.

Dallas—Gas Plant.—The company previously reported as to be organized to absorb the plant of the Dallas Gas & Fuel Co. has secured franchise applied for and will operate as the Dallas Gas Co. It is proposed to expend about \$200,000 in improvements to plant and extending mains.

D'Hanis—School Building.—Town will vote on the issuance of \$5000 of bonds for the erection of brick school building. Address Town Clerk.

Eagle Lake—Rice-mill Improvements.—The Eagle Lake Rice Milling Co. will install additional machinery for increasing the ca-

capacity from 600 to 800 barrels daily. Contract has been let.

Ennis—Oil Development.—A company has been organized by A. M. Morrison, H. T. Moore, S. S. Lightsey, W. R. Kirkpatrick and E. L. Lancaster to drill for oil. Three test wells will be sunk at once near Ennis.

Fort Worth—Railroad Repair Shops.—It is reported that plans have been completed for building proposed shops for the St. Louis & San Francisco Railroad at a cost of \$55,000. J. F. Hincley, St. Louis, Mo., is chief engineer.

Fort Worth—Sewerage System.—City will expend about \$75,000 in extending sewerage system reported last week; John B. Hawley, city engineer.

Galveston—Creosoting Plant.—It is reported that the International Creosoting & Construction Co. is making improvements to the machinery at its creosoting plant and will increase the present capacity of 20,000 superficial feet daily.

Galveston—Mercantile.—Incorporated: M. O. Nobbe & Co., with \$50,000 capital stock, by M. O. Nobbe, S. E. Kempner and W. T. Armstrong.

Houston—Ice and Cold-storage Plant.—Home Ice Co., reported incorporated last week, will operate ice and cold-storage plant. Building 156x77 feet, 26 feet in clear, will be erected and equipped for a daily capacity of 90 tons; capital stock \$90,000. J. L. Clark is president, and W. O. Drake, secretary; office, 430 Fannin street.

Houston—Oil Wells.—The Queen Bee Oil Co. has increased capital stock from \$5000 to \$10,000.

Houston—Press-cloth Mills.—The Oriental Textile Mills will double the capacity of its plant for manufacturing camel's-hair press cloth. It is reported contracts have been awarded for \$100,000 worth of machinery.

Iowa Park—Grain Elevator.—Farmers' Union Elevator Co. has been incorporated with \$20,000 capital stock and J. M. Bell, president; John Hirsch, secretary-treasurer, and J. A. Green, manager, to operate a 25,000-bushel elevator. The company has purchased the property of E. R. and D. C. Kolp.

Madisonville—Canning Factory.—D. W. Ford and W. T. Hawkins have purchased and will operate canning factory having a daily capacity of 1400 cans.

Magnolia—Plantation Company.—M. C. W. Miller, E. A. Cross and Stuart Young, all of Hillsboro, Texas, have incorporated the Montgomery Plantation Co. with \$20,000 capital stock.

Mesquite—Cotton Gin.—The Mesquite Gin Co. has been incorporated with \$10,000 capital stock by A. C. New, E. T. Van Ston and J. S. Lawrence to operate cotton gin.

Nacogdoches—Woodworking Plant.—A company has been organized with \$20,000 capital stock and T. J. Williams, president, to establish plant for the manufacture of show-cases, doors, sash, etc. Machinery has been purchased.

Paris—Candy and Bottling Company.—Incorporated: Paris Candy & Bottling Co., with \$20,000 capital stock, by W. M. Botts, J. M. Hays and W. C. Elliott.

Slisbee—Railroad Repair Shop, Roundhouse, Hotel, etc.—Gulf, Colorado & Santa Fe Railway, C. F. W. Felt, chief engineer, Galveston, Texas, has let contract to W. C. Whitney of Beaumont, Texas, for the construction of a six-stall extension to the roundhouse and a railway machine shop; cost \$23,000. It is also stated that the company will expend about \$25,000 in the erection of a combined clubroom and hotel, etc., for the accommodation of employees.

Taylor—Live-stock Company.—J. W. Womack and J. P. Sturgis have organized the Womack & Sturgis Live-Stock Co. with \$75,000 capital stock.

Texas—Packing Plant.—It is reported that J. Ormerod of New York, N. Y., representing New York capitalists, is investigating with a view to locating packing house and meat-extract factory at some point in Texas, Fort Worth, San Antonio and Houston, Texas, being preferred. It is proposed to erect plant with a daily capacity for 1000 head of cattle, 2000 head of sheep and 2000 hogs and operate as the Texas Liebig Meat Co.

Waco—Iron Foundry.—Incorporated: The Wiggins Radiron & Foundry Co., with \$10,000 capital stock, by O. B. Wiggins, Charles P. Wiggins, R. D. Powell and J. D. Williams, to manufacture sadirons, sash weights, etc.

VIRGINIA.

Bedford City—Flour Mill.—The Bedford Coal & Milling Co., reported incorporated last week with \$25,000 capital stock, will begin at once the erection of flour mill.

Crewe—Electric-light Plant.—Town has voted against the bond issue referred to last

week for the establishment of electric-light plant; R. S. Bevell, recorder.

Emporia—Cotton Mill.—Incorporated: The Emporia Cotton Mills, with capital stock of \$60,000, to manufacture coarse yarns, twine, etc., by James T. Green, president, Baltimore, Md.; W. R. Cato, Emporia, treasurer, and E. L. Wood, Emporia, secretary. Messrs. Wood and Green were referred to in April as forming a cotton-mill company in Emporia.

Kinsale—Canning Factory.—Incorporated: Virginia Sure Food Co., with \$20,000 capital stock, to continue the manufacture of food products, condiments and pickles. Robert Nimmo, Jr., is president; George P. Bailey, secretary-treasurer, and Frank M. Throft, vice-president.

Mt. Holly—Cannery, etc.—Nomini Packing & Manufacturing Co. has incorporated with \$30,000 capital stock to can fruits and vegetables. George P. Bailey is president; Wm. Hutt, secretary, and J. L. Healy, treasurer.

Norfolk—Electrical Supplies.—Seaboard Electric Co. has been incorporated with \$50,000 capital stock by William S. P. Mayo of Richmond, Va.; Arthur L. Bosley, Harry E. Karr of Baltimore, Md.; Thomas W. Dunk of Jacksonville, Fla., and associates to deal in electrical apparatus and supplies of all kinds.

Petersburg—Public Improvements.—City council has passed ordinance (previously mentioned) authorizing the issuance of \$75,000 of bonds for extending sewers and water-mains and improving sidewalks. Address The Mayor.

Richmond—Electrical Company.—Capital Electric Co. has been organized with \$1500 capital stock to do a general electric contracting business for the installation of power, light and heat plants, etc. F. J. Whybrew is president; J. J. Tresnon, secretary, and W. B. Jennings, treasurer; office, 1301 East Main street.

Richmond—Lunch Company.—The Kirkwood Lunch Co. has incorporated with \$30,000 capital stock to operate lunch rooms. Thomas B. Hicks is president; J. P. Brown, vice-president and general manager, and J. T. Davis, secretary-treasurer.

Richmond—Paper Mill.—Reports state that the Champion Coated Paper Co. of Hamilton, Ohio, is investigating with a view to locating branch paper mill.

Roanoke—Water-works Improvements.—The Roanoke Gas & Water Co. has let contract to B. R. McGhee & Co. for enlarging and concreting the upper lake at Crystal Springs, previously mentioned, so as to make it a basin that will be 10 feet in depth and 253x162 feet, and will hold 3,000,000 gallons of water.

Staunton—Light and Power Plant.—Chartered: Blue Ridge Light & Power Co., with \$50,000 capital stock. John M. Spotts is president and treasurer, and C. P. Bowman, vice-president and secretary.

Staunton—Automobile Company.—The Staunton Automobile Transportation Co. has been organized with J. E. Porter, president and general manager; W. H. Hyer, secretary, and W. C. Bosserman, treasurer, to deal in automobiles; capital stock \$10,000.

Tazewell—Coal Mines.—Incorporated: The Bull Creek Coal Co., with \$50,000 capital stock, to mine coal. J. S. Gillespie is president; J. N. Harman, vice-president, and A. S. Higginbotham, secretary-treasurer.

Winchester—Water-power-Electrical Plant.—Winchester & Washington City Railway Co. will build a hydro-electric-power plant on the Shenandoah river; about \$150,000 will be expended. N. Wilson Davis, Harrisonburg, Va., is architect and engineer in charge. (This item was referred to last week.)*

WEST VIRGINIA.

Charleston—Lumber Plant.—Elk River State Co. has incorporated with \$50,000 capital stock to manufacture logs, lumber and staves, deal in timber lands, etc.; incorporators, C. W. Young, W. A. Ohley, R. G. Quarrier, John L. Dickinson of Charleston and Henry Waggy of Sutton, W. Va.

Logan—Laundry and Bottling Works.—Logan Laundry & Bottling Co. has incorporated, with \$10,000 capital stock, to manufacture soft drinks and operate a steam laundry; incorporators, W. I. Campbell, Charles Bennett, F. S. Martin of Logan, W. H. Chapman of Chapmanville, W. Va., and A. W. McLean of Barboursville, W. Va.

Middlebourne—Coal Mining.—Teter Creek Coal Co. has been organized with \$200,000 capital stock to mine coal. C. F. Teter of Philippi, W. Va., is president; R. A. Gorrell of Meadville, W. Va., vice-president, and J. W. Grimm of Middlebourne, secretary-treasurer.

Oceana—Mercantile.—A. R. Wittenberg and

others have incorporated the Wyoming Merchandise Co. with \$15,000 capital stock.

Parsons—Planing Mill.—W. G. Davison, Ocll Davison, T. J. Davis, P. K. Davis of Parsons and W. H. McWhorter of Jane Lew, W. Va., have incorporated the Parsons Lumber & Planing Mill Co., with \$10,000 capital stock.

Salem—Street Paving and Water-works Improvements.—City contemplates issuing bonds for street paving and improvements to water works. Address The Mayor.

Slaterville—Blacksmith Shop.—The Carter Oil Co. is erecting blacksmith shop, 100x150 feet, which will be equipped with a 56-horsepower boiler and other modern machinery.

Slaterville—Mercantile.—J. S. Roberts of Inka, W. Va., and associates have incorporated as Roberts Bros. with \$25,000 capital stock.

West Virginia—Coal Mining.—The Kimberling Land Co., reported incorporated last month with \$25,000 capital stock, will develop about 4000 acres of coal land. John A. Sheppard is president; Wells Gandykountz, secretary-treasurer.

INDIAN TERRITORY.

Dixie—Cotton Gin.—G. W. Newman, reported last week as to build cotton gin, will erect ginhouse 20x60 feet, engine-room 24x30 feet, and millhouse 20x20 feet; daily capacity 40 bales of cotton; about \$5000 will be invested.*

Tulsa—Natural-gas Mains.—Judge H. G. Baker is organizing company to build a pipe line for conveying natural gas from the Tulsa fields to Muskogee, I. T. Between \$700,000 and \$1,000,000 will be invested.

Tulsa—Ice-cream Factory, Ice and Cold-storage Plant.—The National Dairy Co. of Joplin, Mo., it is reported, will erect a \$40,000 ice-cream, ice and cold-storage plant. It is also stated that a similar plant will be built at some point in the Territory adjacent to the Texas line.

OKLAHOMA TERRITORY.

Granite—Granite Works.—The Apache Granite Co., reported incorporated last month, has completed organization with Charles Bailey, president; Francis C. Shearing, vice-president, and B. Pride, secretary. A building 50x150 feet will be erected and equipped for the manufacture of granite for monuments, bridge piers, street work, curbing and paving; capital stock \$25,000.

Guthrie—Laundry.—The Guthrie Laundry Co., reported last week as increasing capital stock from \$15,000 to \$35,000, will build an addition 10x33 feet to boiler-room and make other improvements at a cost of \$5000. John M. Schmidt is engineer in charge.*

Guthrie—Shirt Factory.—The Guthrie Laundry Co. contemplates establishing shirt factory.

Medford—Creamery and Ice Plant.—It is reported that a company is being organized to erect and operate creamery and ice plant, and J. P. Nimms of Pond Creek, O. T., is interested.

Norman—Cottonseed-oil Mill.—The Chickasha Cotton Oil Co. of Norman and Chickasha, I. T., has been incorporated with \$100,000 capital stock by E. B. Johnson, C. H. Bessant of Norman, R. K. Wooten, H. B. Johnson of Chickasha, I. T.; Joab Mulvane of Topeka, Kan.; W. S. Timman of Trenton, Mo., and W. A. Wilhelm of Hobart, O. T.

Oklahoma City—Cotton Company.—Incorporated: The Kiowa-Caddo Stock & Cotton Co., with \$25,000 capital stock, by Fred and Estella M. Brasted, W. C. Healion, Robert Henderson, Jr., of Oklahoma City and associates.

Oklahoma City—Flour Mill and Grain Elevator.—Reports state D. C. Colp of Colp Bros. Milling Co., Fort Worth, Texas, is investigating with a view to locating flour mill and grain elevator.

Perry—Oil and Gas Wells.—R. E. Wade, Charles C. Wagner, Joseph E. Dolezell, Phillip Sunfield, George A. Masters, Edward F. Tabbe, John Knox, James S. Bryan and Geo. A. Foster have incorporated the Consolidated Oil & Gas Co. with \$1,000,000 capital stock to drill for oil and gas.

Pond Creek—Printing Plant.—M. L. Thomas, C. A. Dow, J. H. Decker, A. C. Glenn and A. H. Whitlaw have incorporated the Vidette Printing Co. with \$5000 capital stock.

BURNED.

Albemarle, N. C.—John T. Goodman's bottling works.

Atlanta, Ga.—Wood & Phillips Company's skirt factory, loss \$7000; the Enterprise Bonnet Co.'s factory, loss \$5000.

Chestnut, La.—W. J. Chastain Lumber Co.'s planing mill; loss \$8000.

Jacksonville, Fla.—McMillan Bros.' plant. Kansas City, Mo.—The Diamond elevator, owned by the Beall Grain Co.; loss \$50,000. Little Rock, Ark.—A. Karcher Candy Co.'s factory; loss \$65,000.

Paducah, Ky.—Harth Bros.' warehouse No. 2; loss \$14,000.

Pawnee, O. T.—The Hudson & Badger flour mill.

Petersburg, Va.—Appomattox Box & Lumber Co.'s plant; loss \$8000.

St. Louis, Mo.—The Winkle Terra-Cotta Works; loss \$400,000.

BUILDING NOTES.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Abbeville, Ga.—Jail Building.—Bids will be received until June 5 for the erection of proposed \$15,000 jail building for Wilcox county, after plans by Frank P. Milburn, Columbia, S. C.

Albany, Ga.—School Building.—The city of Albany and Dougherty county have voted the \$25,000 bond issue referred to last week for the erection of high-school building. Address The Mayor.

Alice, Texas.—School Building.—The school trustees have adopted plans and specifications for \$10,000 brick school building previously reported to be erected.

Arcadia, La.—School Building.—D. M. Atkins and J. Rush Wimberly, building committee, will receive bids until June 24 at the office of the superintendent of schools of Bienville parish, for the erection of two-story school building in accordance with plans and specifications on file in the office of J. Rush Wimberly, Arcadia, and office of Honold & Gauthier, architects, Abbeville, La., and will be sent to any contractor upon guarantee that they will be returned. Certified check for \$50 must accompany each bid. Usual rights reserved.

Ashland, Va.—Dormitory.—The Randolph-Macon College, it is reported, will erect \$30,000 dormitory.

Bay City, Texas.—Business Block.—Mrs. T. J. Hamilton has let contract for the erection of two-story brick business block 75x115 feet.

Bells, Tenn.—School Building.—City has voted affirmatively the proposed \$5000 bond issue for improvements to school building. Address The Mayor.

Berkeley Springs, W. Va.—Opera-house and Office Building.—Jos. P. Hawvermale has purchased site on which to erect two-story building, 30x120 feet, to be used as opera-house and office building.

Birmingham, Ala.—Rectory.—Gibson Contracting Co. has contract at \$3400 for the erection of proposed rectory for the Second Presbyterian Church after plans by W. E. Spink.

Bryan, Texas.—School Building.—C. E. Jenkins has contract at \$6598 for the erection of two-story pressed-brick school building for which C. H. Page, Jr., Austin, Texas, was reported as having prepared plans.

Cedartown, Ga.—School Building.—Building Committee, W. C. Bunn, chairman, will receive bids until June 15 for building addition and improving school building. Plans and specifications can be seen at office of the chairman, Cedartown, or at office of A. C. Bruce, architect, 711 English-American Building, Atlanta, Ga. Usual rights reserved.

Chattanooga, Tenn.—Store Building.—Kirby, Mitchell & Co. have let contract to T. A. Chambers & Son for the erection of proposed two-story brick store building to cost \$23,000.

Clinton, O. T.—Business Building.—D. Turbyfill has completed plans for C. G. Welsh's proposed two-story brick business building.

Columbia, S. C.—Clarence Richards has had plans prepared by F. P. Milburn for the erection of proposed residence.

Columbia, S. C.—College Building.—College for Women, Miss McClintock, president, will shortly begin the erection of proposed \$15,000 addition.

Corpus Christi, Texas.—Buildings.—State Epworth League, Rev. George S. Sexton, Galveston, Texas, chairman, has let contract to C. K. Smith of Houston, Texas, for the erection of an auditorium, 70x80 feet, with a seating capacity of 1800; restaurant, 40x60 feet, with dining-room 30x40 feet; 10 cottages, etc.; cost about \$7000.

Corsicana, Texas.—Dormitory and Dining Hall.—D. W. Brillhart of Abilene, Texas, has contract at \$34,291 for the erection of dormitory and dining hall at the Odd Fellows' Widows and Orphans' Home, previously mentioned.

Crescent Springs, Ky.—Convent.—Sisters of St. Walkburg have commissioned Schofield & Walker, 6th and Madison streets, Covington, Ky., to prepare plans for a \$100,000 convent.

Cumberland, Md.—Depot.—Wabash Railroad, it is reported, has let contract to Geo. Tansy for the erection of proposed depot in South Cumberland, and to Macfarlane & Shaffer for installing heating and plumbing.

Cynthiana, Ky.—School Building.—Josephus Martin, secretary school board, will receive bids until June 12 for the erection of school building according to plans prepared by C. C. Weber, First National Bank Building, Cincinnati, Ohio.

Dalhart, Texas.—Building.—Dalhart Investment Co. wants bids on the construction of \$20,000 brick, stone or concrete building. Plans and specifications furnished on application.

Dallas, Texas.—Building.—M. P. Exline Printing Co. will open bids June 14 for the erection of a five-story building. Plans and specifications may be seen at the office of Sanguinet & Staats, architects, Dallas, Fort Worth and Houston, Texas. Certified check for \$1000 must accompany each bid. Usual rights reserved.

Duncan, I. T.—School Building.—J. S. Moad of Dallas, Texas, has contract at \$13,500 for the erection of three-story brick and stone building for the Duncan High School.

Gadsden, Ala.—Bank Building.—Bearden & Foreman of Chattanooga, Tenn., have completed plans for the First National Bank's proposed three-story building, 32x50 feet, of brick and stone.

Gainesville, Ga.—Church.—The First Methodist Church, it is reported, contemplates erecting \$20,000 edifice; to have a seating capacity of 1200. Address The Pastor.

Girard, Ala.—School Building.—Town contemplates erecting \$10,000 school building. Address Town Clerk.

Gulfport, Miss.—Dwelling.—Thomas M. Favre has let contract to D. J. Haire for the erection of residence to cost \$5500.

Haddock, Ga.—Bank Building.—The Winder (Ga.) Lumber Co. has contract to erect bank building, 25x40 feet, for the Jones County Bank, reported last week.

Hancock, Md.—Depot.—Reports state that Geo. Tansy of Cumberland, Md., has contract for the erection of proposed depot for the Wabash Railroad, and Macfarlane & Shaffer of Cumberland, Md., have contract for plumbing and heating.

Henryetta, I. T.—Depot.—It is reported that the Morrison, Oklahoma & Gulf Railroad Co. will begin at once the erection of proposed depot.

Hertford, N. C.—School Building.—Burwell Riddick of Suffolk, Va., has contract to erect two-story brick school building, 66x100 feet, to cost \$15,000.

Hickory, N. C.—Opera-house.—W. P. Huffman has purchased site on which to erect opera-house with a seating capacity of 1500 to 2000.

High Point, N. C.—Dwelling.—Wheeler, Runge & Dickey, Charlotte, N. C., are preparing plans for a \$5000 residence to be erected by George M. Matton.

High Point, N. C.—Dwelling.—W. J. Armfield is having plans prepared by Wheeler, Runge & Dickey, Charlotte, N. C., for a \$15,000 residence.

Hinton, W. Va.—Hotel.—Hinton Hotel Co., previously reported incorporated to build hotel, will let contract about July 15 for the erection of four-story building, 90x100 feet, of ordinary construction, to be equipped with steam heat, electric lights, and cost \$45,000. Frank P. Milburn, Columbia, S. C., prepared the plans.

Hinton, W. Va.—Office Building.—Frank P. Milburn, Columbia, S. C., is preparing plans for \$15,000 office building to be erected by Judge Joseph H. Miller.

Hinton, W. Va.—Building.—Contract will be let about June 15 for the erection of three-story building 47x50 feet for H. Ewart and Jas. H. Miller, for which J. B. Stewart of Huntington, W. Va., is preparing plans.

Hopkinsville, Ky.—Dwelling.—Jas. H. Long has prepared plans and will receive bids until July 7 for a two-story brick-vener residence 60x40 feet, to be erected by R. H. DeTreville.

Houston, Miss.—Church.—It is reported that the Baptist congregation will erect \$8000 brick edifice. Address The Pastor.

Houston, Miss.—Hotel.—C. C. Carroll has contract to erect proposed hotel for N. B. Crawford, after plans by Chris Miller of Meridian, Miss.; building to be two stories, 55x90 feet, of brick, and cost \$12,000.

Houston, Texas.—Depot.—Necco & Elseman have contract at \$7000 for roofing with slate the freight depot of the International &

Great Northern Railway being constructed; size 48x80 feet.

Itasca, Texas.—Church.—C. P. Francis will receive bids until June 15 for the erection of church according to plans prepared by George C. Orr, Dallas, Texas.

Jackson, Miss.—Hotel.—Reports state that I. C. Enochs will erect \$40,000 addition to the Edwards Hotel.

Jacksonville, Fla.—Bank Building.—Florida Bank & Trust Co. has had plans prepared by Frank P. Milburn, Columbia, S. C., for proposed marble-front bank building, and bids for the construction are being received.

Jellico, Tenn.—Opera-house.—F. Hubbell & Sons of Knoxville, Tenn., have contract to erect three-story opera-house for Moore & Smith.

Johnson City, Tenn.—Business Building.—C. G. Mitchell is preparing plans for three-story business building reported last week to be erected by Armbrust & Smith; to be of fireproof construction, 75x100 feet, equipped with steam heat and electric lights, and cost \$10,000.

Kanawha, W. Va.—Brown & Davis, Fostick Building, Cincinnati, Ohio, are preparing plans for a two-story addition and remodeling the Kanawha Valley Bank Building.

Kansas City, Mo.—Business and Flat Building.—W. H. Hackett has permit to erect two-story brick business and flat building to cost \$8000.

Kansas City, Mo.—Roundhouse.—The Chicago & Alton Railway is reported as completing arrangements for the erection of proposed roundhouse. C. H. Kimball, Chicago, Ill., is chief engineer.

Kirkville, Mo.—Jail Building.—Adair county has voted affirmatively the proposed \$17,000 bond issue for the erection of jail building. Address County Clerk.

Knoxville, Tenn.—Hotel Improvements.—James G. Sterchi is reported as to erect addition and make other improvements to the Hotel Stafford at a cost of \$50,000.

Lake Charles, La.—Store Building.—L. Kaufman will erect two-story brick building, 45x100 feet, to be occupied by the Hemenway Furniture Co.

Lake Village, Ark.—Courthouse.—George K. Cracraft, V. E. Moss, Allen Beadel, commissioners of public buildings, Lake Village, Ark., will open bids June 19 for the erection of courthouse for Chicot county in accordance with plans and specifications on file at the office of Frank W. Gibb, architect, 2-4 Reider Building, Little Rock, Ark., or at the office of W. G. Street, Lake Village. Usual rights reserved.

Laurel, Miss.—School Building.—Peter H. Krause, Meridian, Miss., has prepared plans for brick school building previously reported to be erected.

Little Rock, Ark.—Lodge Building.—Aaron Frank has had plans prepared by Mann & Downey for the erection of a two-story brick building 60x100 feet.

Louisville, Ky.—Church.—St. Andrew's Episcopal Church, Dr. John K. Mason, rector, it is reported, will build a mission in South Louisville.

Louisville, Ky.—Clubhouse.—The Tavern Club will expend about \$14,000 in remodeling the Dudley property, recently purchased, as clubhouse.

Louisville, Ky.—Hotel Improvements.—The Louisville Hotel Co. has let contract to Cooper-Hewitt Company for proposed improvements to hotel; cost \$20,000.

Macon, Ga.—Dwelling.—N. M. Block is completing arrangements for the erection of proposed residence.

Memphis, Tenn.—Dwelling.—J. P. Jordan has had plans prepared by Alsop & Woods for a two-story brick veneered residence to be erected at a cost of \$5500.

Memphis, Tenn.—Residence.—Alsop & Woods have completed plans for \$6000 residence for W. M. Thompson.

Memphis, Tenn.—Building.—Plans for the improvements to be made to the Memphis Institute Building are being prepared by Chighizola, Hanker & Cairns; cost \$8000.

Memphis, Tenn.—Store Building.—James Bartl has contract to build the Lenzi brick stores at Georgia and La Rose streets after plans by Chighizola, Hanker & Cairns; to be three stories and cost \$12,500.

Memphis, Tenn.—Dwellings.—J. F. Kimbrough has had plans prepared by Jones & Furbringer for the erection of five residences at Carroll & Poplar streets; to be two stories, of stone veneer, 35x50 feet.

Meridian, Miss.—Store and Office Building.—The Bostick Manufacturing Co. is erecting a two-story brick building, 120x60 feet.

Memphis, Tenn.—Dwellings.—Jones & Furbringer have prepared plans for a two-story residence to be erected by Ed McGowan at a

cost of \$6000. Same architect has prepared plans for two-story residence for J. N. Thomas; cost \$6500.

Middlebourne, W. Va.—Courthouse.—Tyler county will vote June 27 on the issuance of \$60,000 of bonds for the erection of courthouse referred to last month. If bond issue does not carry, repairs will be made to old building at a cost of from \$19,000 to \$30,000. It is proposed to erect a fireproof building, to have steam and gas heating plant, gas and electric lights, plans and specifications for which have been received from W. H. Patton, Parkersburg, W. Va.; W. J. Alexander, New Martinsville, W. Va., and Frank P. Milburn, Columbia, S. C.; J. W. Duty, county clerk.

Milner, Ga.—Bank Building.—The Milner Banking Co., organized with J. O. Norris, president, will erect bank building.

Montgomery, Ala.—College Building.—Jas. Hodgson, and not Hodges as reported last week under Birmingham, Ala., has contract for the erection of building, 80x100 feet, of ordinary construction for the State Normal School to cost \$18,000. F. Lockwood prepared the plans.

Nashville, Tenn.—Hotel.—William Hartman is having plans prepared by Charles L. Hutchison for the erection of three-story brick addition to hotel.

Newberry, S. C.—Church.—First Baptist Church contemplates erecting edifice to cost \$8000 or \$10,000. Address The Pastor.

Newberry, S. C.—Store Building.—J. D. S. Livingston has let contract to Pope Davis for the erection of proposed two-story building.

New Orleans, La.—Wharf.—Plans have been completed and bids will be opened June 13 for building the proposed Toledano-street wharf; to have approximately 875 feet of wharfage and cost about \$60,000; J. F. Coleman, engineer, 920 Hibernia Bank Building.

New Orleans, La.—Business Building.—Elias Pallet is arranging for the erection of business building.

New Orleans, La.—Church.—Rayne Memorial M. E. Church will be remodeled at a cost of \$15,000; Dr. Richard Wilkinson, pastor.

New Orleans, La.—Shed.—Board of Port Commissioners has let contract to the Bedell Structural Steel & Foundry Co. at \$844.36 for building the Julia-street shed No. 2. Calogne & Sargent were awarded contract for building concrete foundations at the Henderson-street shed No. 2.

New Orleans, La.—Store Building.—Ben Beekman has secured site on which to erect addition to store building, to cost about \$50,000.

New Orleans, La.—Hotel.—The La Baronne Realty Co., previously reported incorporated to erect hotel, is having plans prepared by Toledano & Wogan, 728 Common street, for the erection of press-brick, limestone and terra-cotta hotel, to be known as the Denechoud.

New Orleans, La.—Hotel Improvements.—Toledano & Wogan, 728 Common street, New Orleans, and H. C. Koch & Co. of Milwaukee, Wis., are preparing plans for 14-story addition to be erected to the Gruenewald Hotel.

New Orleans, La.—School Building.—Toledano & Wogan, 728 Common street, have prepared plans for proposed brick school building to be erected by the Order of St. Francis.

New Orleans, La.—Municipal Docks and Wharves.—The board of commissioners of the port of New Orleans, in connection with its plans for rebuilding the municipal docks and wharves, will award other contracts in addition to those mentioned from time to time in this column. In rebuilding the wharves the grade is being made three feet higher than the highest water mark recorded; a great part of this work is under way. Steel sheds will be constructed over the entire system, and the entire front will be a granite-block roadway. Part of this has been completed, and the paving of approaches to this roadway is included in the general plans, for which about \$2,000,000 will be expended. About 2700 feet of wharfage is in course of construction at a cost of \$165,000. The board will expend about \$80,000 to rebuild the lower steamboat landing (about 1300 feet long), and the plans and specifications are nearing completion. Bids for constructing Toledano-street wharf (about 1000 feet) will be opened June 13; cost from \$50,000 to \$60,000. Hugh McCloskey is president of the commissioners. F. J. Coleman is the engineer in charge.

Newport News, Va.—Bank Building.—P. Thornton Marye, Atlanta, Ga., has prepared plans for bank building previously reported to be erected by Schmeltz Bros.

Newton, N. C.—School Building.—City has voted the proposed bond issue for the erection of school building. Address The Mayor.

Norfolk, Va.—Hotel.—Chartered: Colonial Hotel Corporation, with an authorized capi-

tal stock of \$15,000. A. B. Seldner is president; A. P. Warrington, vice-president, and H. N. Castle, secretary-treasurer.

Norfolk, Va.—Office Building.—The United Owners' Realty Corporation is being organized for the erection of building at Granby and Plume streets at a cost of \$150,000, to be known as the Law Building.

Northeast, Md.—School Building.—Pilchard & Furness are lowest bidders at \$12,900 for the erection of high-school building, previously mentioned.

Oklahoma City, O. T.—Business Block.—J. P. Martin is completing arrangements for the erection of proposed three-story brick business block.

Palestine, Texas.—Church.—Christian congregation contemplates erecting edifice. Rev. Mr. Anderson is pastor.

Pine Bluff, Ark.—Telephone Exchange.—The Southwestern Telegraph & Telephone Co. will receive bids until June 15 for the erection of a two-story brick telephone-exchange building. Separate bids will be received for construction, heating, wiring and plumbing. Certified check for \$500 must accompany each bid. Plans and specifications on file at the company's office, Pine Bluff and Little Rock, Ark. Company reserves usual rights.

Portsmouth, Va.—Club Building.—Dana-vant & Watkins have contract to erect two-story frame building for the Portsmouth Boat Club.

Salem, Va.—Store Building.—B. C. Hutchinson, architect, 314 Terry Building, Roanoke, Va., will receive bids until June 10 for the erection of brick store building. Plans can be seen at office of J. S. Persinger, Salem, and at architect's office, Roanoke, Va.

San Antonio, Texas.—Hotel.—San Antonio Hotel Co. is having plans prepared by J. H. Davenport & Son, Grand Rapids, Mich., for the erection of seven-story brick and stone hotel building to be erected at a cost of \$150,000.

Savannah, Ga.—Roundhouse.—Savannah Union Station Co. will erect roundhouse to cost from \$3000 to \$5000, replacing structure reported burned last week.

Schlater, Miss.—Bank Building.—J. L. Mishell has contract to erect two-story bank building 70x110 feet for the Planters' Bank, referred to last week; cost \$13,500.

South McAlester, I. T.—Business Building.—Reports state that J. LeRoy Sadler will erect three-story brick building.

South McAlester, I. T.—Church.—First Baptist Church is reported as to erect \$20,000 brick edifice. Address The Pastor.

Statesboro, Ga.—Hotel.—The Statesboro Hotel Co., previously reported organized to build hotel, has let contract to J. H. Franklin for the erection of three-story building to be equipped with steam heat, electric lights; cost \$20,000. De Bruyan Kops, Savannah, Ga., prepared the plans.

St. Louis, Mo.—Business Building.—Balmor & Weber Music House Co. has had plans prepared by William H. Kirchner for the erection of a six-story building 25x109 feet, to cost \$45,000.

St. Louis, Mo.—Business Buildings.—It is reported that Festus J. Wade and Lorenzo E. Anderson will erect 50 buildings to be occupied by commission merchants and known as Produce Row.

St. Louis, Mo.—Apartment-house.—E. C. Jansen, architect, Wainwright Building, will receive bids until June 12 for a two-story apartment-house of press brick, 40x86 feet, to be erected by Miss Gamgnes at a cost of \$30,000.

St. Louis, Mo.—Church.—Turnbull & Jones, Elgin, Ill., are preparing plans for proposed one-story brick edifice to be erected by the Bowm M. E. Church at a cost of \$22,000.

St. Louis, Mo.—Dwellings.—F. A. Bannister, Fullerton Building, will receive bids until June 12 for three two-story houses 40x55 feet, of press brick and stone, to cost \$30,000.

St. Louis, Mo.—Flat Building.—Wm. A. Lucas, architect, Odd Fellows' Building, will receive bids until June 12 for the erection of three two-story double flat buildings 50x58 feet, of press brick, to cost \$30,000.

St. Louis, Mo.—Flat Buildings.—Theodore Rapp, architect, 2806 Utah street, will receive bids until June 12 for two two-story flat buildings 25x52 feet, of press brick and terra-cotta; cost \$8000.

St. Louis, Mo.—Store and Flat Building.—Fred Volral, 7401 South Grand street, has prepared plans and will receive bids until June 12 for a two-story store and flat building 39x45 feet, of press brick and stone, composition roof, to be erected at a cost of \$9000.

Summit, Va.—Depot.—It is reported that the Richmond, Fredericksburg & Potomac Railroad will erect a passenger and freight

depot. W. D. Duke, Richmond, Va., is general manager.

Tishomingo, I. T.—Business Block.—Marshall B. H. Cobert has let contract to C. C. Goddard for a two-story brick business block, replacing structure recently burned.

Tougaloo, Miss.—Dormitory.—Josselyn & Taylor Company, Cedar Rapids, Iowa, are preparing plans for two-story dormitory 108x126 feet for the Colored University, F. G. Woodworth, president; cost \$10,000.

Tullahoma, Tenn.—Church.—It is reported that site has been purchased on which to erect edifice for the First Baptist Church. Address The Pastor.

Warrenton, Ga.—School Building.—Town contemplates the issuance of \$15,000 of bonds for the erection of school building. Address Town Clerk.

Washington, D. C.—Dwelling.—Otis D. Sweet is having plans prepared by Architect Palmer for the erection of a two-story residence at Chevy Chase at a cost of \$7,000.

Washington, D. C.—Workhouse.—W. E. Speer was lowest bidder at \$50,000 for red brick and \$53,000 for light brick for building the east wing of the workhouse at the Washington Asylum.

Washington, D. C.—Building.—Cramp & Co., Philadelphia, Pa., are lowest bidders at \$15,526 for the extension of the low-temperature laboratory.

Washington, D. C.—Office Building.—Bids will be received at the office of Elliott Woods, superintendent United States Capitol Building and grounds, Washington, D. C., until June 29 for the exterior facades and the court walls of the office building, United States Senate. Plans and specifications may be obtained on receipt of check for \$50 payable to the superintendent. Usual rights reserved; E. A. Hitchcock, Secretary of Interior.

Webb City, Mo.—Bank and Office Building.—A. C. Michaels, 324 Miners' Bank Building, Joplin, Mo., has prepared plans and bids will be received until June 12 for a three-story bank and office building 50x100 feet, to be erected by the Merchants and Miners' Bank at a cost of \$20,000.

Wheeling, W. Va.—Depot.—Plans are being prepared for the erection of proposed depot for the Baltimore & Ohio Railroad; to be constructed of granite and sandstone, three stories, 100x250 feet in the central portion, with two-story wings on each side 80x100 feet; to cost \$300,000. D. D. Carothers, Baltimore, Md., is chief engineer.

Wilmington, N. C.—Residence.—The Episcopalians are considering the erection of \$15,000 residence of brick on Orange street for the bishop, and William L. De Rosset, B. R. Huske and G. C. Royal have been appointed a committee to consider plans and specifications.

Wrightsville, Ga.—College Building.—The trustees of the Nannie Low Warthen Institute contemplate the erection of college building at a cost of \$18,000.

RAILROAD CONSTRUCTION.

Railways.

Altoona, Fla.—J. C. Gross of the St. Johns Log Tie Co. will, it is reported, build an extension 13 miles long, making a 30-mile railroad.

Apalachicola, Fla.—Messrs. Brobston, Fendig & Co., real-estate dealers, Brunswick, Ga., write the Manufacturers' Record confirming the report that they closed a deal for 193,000 acres of land in Liberty and Franklin counties, Florida, recently for about \$1,000,000, the purchaser being the St. Joseph Land & Development Co. The parties interested are financing the Apalachicola & Northern Railroad, now building between Apalachicola and St. Joseph Bay. The line will be extended north from Apalachicola to Bainbridge, Ga., and it is expected that it will also go to Atlanta. Charles B. Duffie is in charge of construction at Apalachicola, Fla. R. H. Hemphill heads the land company; address, Planters' Hotel, St. Louis, Mo.

Anderson, S. C.—The Ohio, Knoxville & Port Royal Railway and the Ohio River, Anderson & Tidewater Railroad have filed articles of consolidation as the Chattanooga, Anderson & Atlantic Railway. The papers are signed by J. E. Breazeale of Anderson and Frederick A. Johnson of Chicago, respectively secretary and first vice-president. The officers of the consolidated company are Albert A. Martin, president; Frederick A. Johnson, first vice-president; directors, Albert R. Martin, Frederick A. Johnson and J. R. Lea, Chicago; N. B. Neeley, Milwaukee, and J. E. Breazeale, P. K. McCully, Sr., B. F. Whitner, J. J. Fretwell of Anderson, S. C., and R. E. A. Hamby of Clayton, Ga.; capital \$300,000. The papers state that

neither concern so far owns anything but franchises and rights of way.

Arkadelphia, Ark.—The Clark & Pike County Railroad Co. of Arkadelphia has been chartered to build a line 14 miles long from Gurdon, Ark., northeast to a point near Hollywood. Directors are Wm. Grayson and N. W. McLeod of St. Louis and C. C. Jackson, C. G. Carpenter and M. J. Hale of Clark county, Arkansas.

Arkadelphia, Ark.—The Saline Bayou Railway Co. has been chartered to build a line 14 miles long from Oakleaf, on the Iron Mountain Railroad, to a point near Joan. The incorporators are Louis Warner and F. R. Pierce of St. Louis, W. B. Ayers of Strand, Ark.; Donald McMillan and J. H. McMillan of Arkadelphia.

Baltimore, Md.—The Washington, Baltimore & Annapolis Electric Railway Co., controlled by George T. Bishop and John Sherwin of Cleveland, Ohio, has organized the Baltimore Terminal Co. and has applied to the city council for a franchise to bring its line into Baltimore. Construction is now under way between Baltimore and Washington.

Charlotte, Tenn.—Joseph R. Neblett and a corps of engineers are reported now completing the preliminary survey for the Tennessee Industrial Railroad from Florence, Ala., to the mouth of the Harpeth river via Charlotte and Pond, Tenn.

Chester, S. C.—Mr. L. T. Nichols, general manager of the Carolina & Northwestern Railway, informs the Manufacturers' Record that the company is not making any extensions as reported, but that the Caldwell & Northern Railroad, of which he is also general manager, is extending its line to the Tennessee coal fields, but its route beyond the Blue Ridge is not yet decided.

Chicago, Ill.—The Illinois Central Railroad is reported to be surveying for a new belt line around Memphis, Tenn., and it is said that a contract for part of the work has been let. A. S. Baldwin is chief engineer at Chicago.

Chicago, Ill.—Reported that the Chicago & Alton Railway will begin work next month on its new freight yard in the East Bottoms at Kansas City, Mo. Ten miles of side tracks are to be built. G. H. Kimball is chief engineer at Chicago.

Clifton Forge, Va.—Reported that W. W. Taylor and W. G. Matthews will build a railroad from their stone quarry near Ingle-side Park to connect with the Chesapeake & Ohio Railway.

Clintwood, Va.—The Virginia & Kentucky Railway has completed its survey from Wise, Va., to a point within two miles of Clintwood, and it will soon reach this place.

Columbia, La.—The Ouachita & Northwestern Railroad Co. has recorded its charter to build a line from Clarks in Caldwell parish to Weston in Jackson parish, about 30 miles. The incorporators are J. B. White, J. D. Riddell, James T. Whitehead, W. S. McKinney, Ben Herr, Fred C. Broadway and C. E. Slagle, all of Missouri.

Corpus Christi, Texas.—Concerning the report that the company will build a line from Calvin, Texas, to Corpus Christi, Mr. W. P. Homan, chief engineer of the St. Louis, Brownsville & Mexico Railway, informs the Manufacturers' Record that the matter has been talked of, but nothing done yet.

Dallas, Texas.—Reported that the Texas & Pacific Railway will make extensive improvements to its line between Marshall, Texas, and Baton Rouge, La.; also that track will be built from Shreveport to Relser. B. S. Wathen is chief engineer.

Enid, O. T.—The Denver, Enid & Gulf Railroad has, it is reported, completed arrangements for entrance to Oklahoma City. A terminal association will be formed. Ed L. Peckham is vice-president and general manager at Enid.

Fairmont, W. Va.—The Fairmont & Clarksburg Traction Co. is reported to have let contract to local firms to build its 22-mile line from Fairmont to Clarksburg, which is to be completed by December 1.

Gainesville, Ga.—Concerning the report that he and others will build an electric railway from Cartersville to Marietta, Ga., Gen. A. J. Warner writes the Manufacturers' Record that he is not aware that any steps have yet been taken towards building an electric railroad between those points, nor does he know of any such charter.

Goldboro, N. C.—Mr. R. P. Foster, general manager of the Atlantic & North Carolina Company, writes the Manufacturers' Record that the press report to the effect that the company would build a branch railroad from Lagrange to Snow Hill, N. C., is premature. The proposition has not yet been taken up, and he cannot say that it will be considered at all.

Greenfield, Ark.—The Greenfield & South-eastern Railroad Co. has been chartered to build from Greenfield in Poinsett county to Marked Tree, Ark., 20 miles. The incorporators are W. H. Howe and O. D. Howe of Greenfield, Ark.; S. E. Howe of Logansport, Ind.; Lewis Heffner of Elwood, Ind.; J. J. Mardis, J. R. Williams, B. F. Cole, W. H. Duncan, J. H. Vandiver and L. G. Minton of Harrisburg, Ark.

Greensboro, N. C.—The Central Carolina Construction Co. has organized by electing officers as follows: W. C. Bain, president; F. A. Weston, vice-president; J. N. Longest, secretary-treasurer; E. D. Tessier, superintendent.

Greenville, Miss.—Messrs. Jayne & Watson, attorneys, write the Manufacturers' Record concerning the projected Percy, Lake Providence & Yazoo Railroad, the proposed incorporators of which are J. M. Cashin, James Robertshaw and Hugh C. Watson, all of Greenville. The line will be about 65 miles long and will connect Glen Allen, Grace, Valley Park and Percy with the Yazoo & Mississippi Valley Railroad and Percy with the Southern Railway. Charter not yet granted.

Hannibal, Mo.—A committee has been appointed to secure funds to survey a route for an electric railroad connecting Hannibal and Kirksville via Shelbyville, Palmyra and Philadelphia. J. M. McCall of Kirksville, F. H. Sosey of Palmyra and others are interested.

Hendersonville, N. C.—The Interurban Appalachian Electric Railway Co. has elected W. A. Smith of Hendersonville, president; F. M. Sterns of Polk county, vice-president; J. W. Wafford, secretary, and J. Williams, treasurer, both of Hendersonville. This line will connect Hendersonville, Asheville and Gaffney, S. C., via Chimney Rock, Rutherfordtown and Columbus; work to begin soon.

Homan, Ark.—The Homan & Southern Railway Co. has been chartered to build a line from Homan, Ark., to Hevey, Ark., about 9 or 10 miles. The incorporators are L. Evers, H. G. McBurney, H. G. Tarvin, C. B. Kelley, J. H. McFarland and S. C. Bird of Homan, and L. Minor, John W. Stayton, Jos. Volkmer and Jos. M. Stayton of Newport, Ark. The directors are Messrs. Kelley, Volkmer, McBurney, Tarvin and Jos. M. Stayton.

Houston, Texas.—The Southern Pacific system will, it is reported, build a line into Port Arthur, Texas. A. V. Kellogg is engineer maintenance of way at Houston.

Hyattsville, Md.—William H. Benton, chief engineer of the Anacostia, Surrattsville & Brandywine Electric Railway, is reported as saying that preliminary surveys are under way and that practically the rights of way have been secured for the line, which is to run from Anacostia via Walker's Road, Silver Hill, Camp Springs, Surrattsville and T. B. to Brandywine, Md., 20 miles.

Jacksonville, Fla.—Notice is published that application will be made to charter the Jacksonville, Suburban & Seashore Railroad Co. to build an electric line about 20 miles long from Jackson to Pablo Beach or near there. The incorporators are John D. Lawrence, William A. Riddle, M. H. Ridez, Wm. T. Simmons, A. B. Humphreys and D. I. Myerson, Jr. Messrs. Lawrence and Riddle own 150 shares each and the others one share each. The Riddle-Lawrence Company has offices in the Stockton & Budd Building. The board of railroad directors is composed of the incorporators and Mr. William S. Ferrell. Mr. Lawrence is president, and Mr. Riddle, secretary and treasurer.

Jellico, Tenn.—Mr. R. B. Baird, president of the National Bank of Jellico, writes the Manufacturers' Record that a charter has been asked for the Jellico Electric Railway Co., but no further steps have yet been taken.

Kansas City, Mo.—The Kansas City, Mexico & Orient Railway has, it is reported, resumed the survey for its line near San Angelo, Texas, going south toward Spofford Junction. W. T. Millington is engineer in charge of the field corps; M. P. Paret, chief engineer. The company is also said to have resumed construction south from Londa, O. T., where 20 miles will complete line to the South Canadian river. John P. Hughes of Fort Worth, Texas, is reported to have received the Orient's contract from Sweetwater, Texas, to San Angelo, Texas, 75 miles, 20 of which is now graded.

Kingsville, Texas.—Mr. Jeff N. Miller, vice-president and general manager St. Louis, Brownsville & Mexico Railway, is reported as saying that on June 15 the line from Sinton to Refugio, Texas, 22 miles, will be opened for traffic. The company now has lines as follows: From Sinton to Brownsville, Texas, 162 miles; from Harlingen to Fordyce, Texas, 53 miles. It is also building from Sinton to Bay City, 146 miles, and the contract is let for an extension of 66 miles from Bay City to Algoa. All this construction is in Texas.

Lake Charles, La.—The Brimstone Railroad & Canal Co. has been incorporated by gentlemen connected with the Union Sulphur Co. to build a line connecting with the Louisiana Western Railway of the Southern Pacific system. It may also build a canal. The incorporators of the company are J. Fonlette, John L. Henning, S. W. Maxwell, Hugo Spitzer and Samuel Sweeney.

Lester, Ark.—The Lester & Ouachita Valley Railroad Co. has been chartered to build a line about 24 miles long from Lester to Rosston. The incorporators are F. R. Pierce of St. Louis, A. P. Green of Lester, Ark.; J. S. Parkman, W. K. Ramsey, W. W. Brown and J. T. Sifford, all of Camden, Ark.

Lewisburg, W. Va.—The Lewisburg & Ronceverte Electric Railway Co. has elected as directors A. F. Mathews, D. C. T. Davis, James Laing, John A. Preston, S. L. Price, R. B. Holt, R. P. Rittenhouse, R. L. Telford and H. L. Van Sickle. D. C. T. Davis was elected president; James Laing, vice-president, and Wm. E. Nelson, secretary and treasurer.

Live Oak, Fla.—The St. Mary, Suwannee & Gulf Railway has been incorporated by Frank Drew, T. P. Alston, George L. Drew, R. N. Ellis, Jr., and others. The line will be about 180 miles long through Nassau, Baker, Columbia, Hamilton, Suwannee, Lafayette, Taylor, Jefferson and Wakulla counties.

Louisville, Ky.—The Cincinnati, Flemingsburg & Southern Railway Co., lately incorporated by Attila Cox and others of Louisville, is reported to be for the purpose of taking over the Covington, Flemingsburg & Ashland Railroad, which has been purchased by a syndicate and for extending it.

McComb City, Miss.—Reported that the Liberty White Railroad is building 12 miles of its extension to Columbia, Miss.

Macdonald, W. Va.—Mr. S. Dixon, one of the incorporators, writes the Manufacturers' Record confirming the report that the Piney River & Paint Creek Railway Co. has been chartered to build a line from Beckley Station on the Chesapeake & Ohio Railway, on Piney river, to some point on Paint creek near the mouth of Mossy creek, to connect with the Deepwater Railroad, 21 miles. It will develop coal lands. Contract let to Carpenter, Frazier & Boxley. Expected that grading will be finished by October 1. Mr. Dixon is general manager of the Macdonald Colliery Co. and other coal corporations.

Magnolia, Miss.—Franchises have been granted at Magnolia and Summit to C. V. Ratcliffe, J. H. Price and L. E. Schilling for the proposed electric railway to connect Magnolia and Summit. It will be about 12 miles long.

McMurrain, Ark.—The McMurrain & New London Railway Co., to build a line two miles long from McMurrain, on the Iron Mountain Railroad, in Union county, has been chartered by Geo. S. Miles and G. F. Miles of McMurrain, J. J. Jones of Eldorado and A. C. Ramsey of St. Louis.

Lynchburg, Va.—M. H. Garland, city surveyor, is reported to have made a survey in Halifax county for several miles of narrow-gauge railroad to be built by the Monroe Lumber Co.

Madisonville, Ky.—The Commercial Club is discussing a plan to build the projected railroad from Madisonville via Sacramento or Bremen to Cloverport, Ky.

Marshall, Texas.—Survey has been resumed for the Gulf, Texas & Northern Railroad, and Capt. L. W. Lloyd, vice-president and general manager, is reported as saying that with favorable weather construction will be pushed.

Mesquite, Texas.—R. S. Kimbrough is reported as saying that preliminary arrangements to build an electric railway from Dallas to Mesquite and Forney have been made and that the necessary money can be secured. S. B. Marshall, C. L. Wakefield, Judge Eckford and Henry Skelton are also interested.

Minneapolis, Minn.—Reported that M. J. Scanlon, D. L. Brooks, H. E. Gipson and A. Z. Brooks of Minneapolis will build a railroad near Anife, La., where they have purchased timber lands.

Monroe, La.—The Standard & Baton Rouge Railway, to build a line from Monroe via Standard to Cheneyville, about 110 miles, has filed its charter. The directors are J. B. York, president; J. F. Rutherford, vice-president; C. J. Sansteg, secretary and general manager; E. T. Lankin, general attorney; D. H. Dunkin, Robert York and R. L. Rutherford.

Montezuma, Ga.—Contracts are reported let for the Birmingham & Atlanta Railway's extension as follows: From Montezuma to Oglethorpe to the Missouri Construction Co., address Oglethorpe, Ga.; from Oglethorpe to

Talbotton, Ga., to C. D. Smith & Co. and J. B. Lewis, address Oglethorpe, Ga.; from Talbotton to Warm Springs, Ga., to the Calahan Construction Co. of Knoxville, Tenn.; from Warm Springs to Lagrange, Ga., to C. D. Smith & Co. and J. B. Lewis. Engineers are locating the line from Lagrange to Birmingham, Ala., and also for the branch to Atlanta.

Nashville, Tenn.—The Tennessee Central Railroad will, it is reported, make the survey for its western extension from Hopkinsville, Ky., to Paducah, Ky., instead of to Joppla, Ill. A preliminary survey is reported complete showing a line with grade of one-half of 1 per cent. and curves of about 6 degrees; line 70 miles long. L. F. Lonnbladh is chief engineer.

New Orleans, La.—Mr. H. Genereux Dufour, secretary, writes the Manufacturers' Record, quoting President C. C. Cordill of the Colorado Southern, New Orleans & Pacific Railroad Co. as saying that the proposed line will positively be built and in operation within the next 20 months from New Orleans to De Quincy, La., and that the company has several surveying parties now in the field.

New Orleans, La.—The Colorado Southern, New Orleans & Pacific Railroad Co. is reported to have closed a deal for the Baton Rouge, Hammond & Eastern Railroad Co.'s franchises, which will enable the company to continue its proposed DeQuincy and Baton Rouge line eastward from the latter point for a distance of 20 miles.

Norfolk, Va.—Sands & Oliver, contractors, have begun preparing the right of way at Suffolk, Va., for building the Tidewater Railway. Raymond DuPuy, general manager, is reported ready to ask bids for another section of the line.

Norfolk, Va.—The Norfolk County Timber Co. is reported to be building a logging road to extend from a point near Berkley via Wallacetown to timber lands. E. A. Buell is president of the company, which is said to be buying equipment.

Oklahoma City, O. T.—Engineers are reported surveying for the proposed Oklahoma City & Texas Railroad from Oklahoma City to either Wichita Falls or Henrietta, Texas. G. B. Stone is said to be in charge.

Oklahoma City, O. T.—The Lake Shore & Northwestern Railroad is reported organized to build a line out of Oklahoma City. The directors are I. M. Putnam, president; P. F. Peterson, vice-president; Woodford Mabrey, corporation counsel; John McDaniels, superintendent and general passenger agent; W. H. Phillips and J. N. Stone.

Opelousas, La.—Reported that surveys are in progress for the Opelousas, Gulf & Northeastern Railroad, of which Thomas F. Lewis is president. J. E. Williamson of Evansville, Ind., representing New York capital, has investigated the line and is reported as saying that he will recommend its construction.

Port Arthur, Texas.—Reported that the contract to build the first 40 miles of the proposed Port Arthur & Houston Short Line has been let to H. F. Best of Port Arthur, and that construction will begin soon. The line will run via Winnie and Wallisville.

Portland, Ark.—The Portland & Southeastern Railway Co. has been chartered to build a line from Portland, Ark., to the Louisiana boundary in section 34, township 10 south, range 3 west, about 20 miles. The incorporators are H. C. Bradley, Isaac Kirk and H. C. Clinty of Cleveland, Ohio; Frank W. Vetter of Buffalo; S. G. Tucker, J. A. Dean, W. A. Steel, J. C. Bain of Portland, Ark., and J. R. Thomson and A. H. Marsh of Empire, Ark.

Portsmouth, Va.—Reported that the Seaboard Air Line will build a branch from Aragon, Ga., to Rome, Ga., 15 miles. W. W. Gwathmey is chief engineer at Portsmouth, Va.

Raleigh, N. C.—The Raleigh & Pamlico Sound Railroad has established its first station at Knightdale, nine miles east, and it is expected the line will be in operation there by July 4.

Richmond, Va.—The Chesapeake & Ohio Railroad has, it is reported, let a contract for a 10-mile extension of its line along Marrowbone creek in Kentucky to reach the Elkhorn coal fields in Letcher county. It is also reported that the Elkhorn City line will be completed by June 25, and that another branch will be started along the main fork of the Elkhorn within two months; also that the extension of the Greenbrier branch from Durbin to Arbogast, six miles, in Pocahontas county, West Virginia, is practically completed. It may be extended about 25 miles to connect with the Dry Fork Railroad running to Hendricks, on the West Virginia Central. F. I. Cabell is engineer of construction at Richmond.

Richmond, Va.—Reported that the Chesapeake & Ohio Railway will extend the Coal River Railway (now complete from St. Albans to Holly, W. Va., 22 miles) through Logan and Boone counties to a point beyond Madison, W. Va., 45 miles. F. I. Cabell is engineer of construction at Richmond.

Saginaw, Ark.—The Saginaw & Ouachita River Railroad Co. has been chartered to build a line from Saginaw Junction, in Hot Springs county, to Saginaw, three miles. The directors are A. J. Neimeyer of St. Louis, L. W. Downs, Frank Neimeyer, E. L. Neimeyer and F. M. Houston of Saginaw, Ark.

Springfield, Mo.—The Kansas City, Nevada & Springfield Railway is reported to have let construction contracts as follows: To J. F. Kelser of Springfield, Mo., 10 miles, including bridges and masonry; to the Parsons Improvement & Construction Co. of Parsons, Kans., 20 miles; to the Joplin Construction Co. of Joplin, Mo., 20 miles.

St. Louis, Mo.—Concerning the report that the company would build a line from Oklahoma City, O. T., to Wichita Falls or Henrietta, Texas, President F. N. Finney of the Missouri, Kansas & Texas Railway writes the Manufacturers' Record saying that nothing of this kind has been talked of, nor is it in view, at least by his company.

St. Louis, Mo.—Reported that the Missouri, Kansas & Texas Railway will spend about \$500,000 for improvements at Muskogee, I. T., including new yards. S. B. Fisher is chief engineer.

St. Louis, Mo.—An officer of the Missouri Pacific Railway writes the Manufacturers' Record that there is no foundation for the report that the plans of the company contemplate an extension from Boonville to Moberly, Mo.

St. Louis, Mo.—An officer of the Frisco system writes the Manufacturers' Record that he has no knowledge of a plan to extend from Quanah, Texas, to Hale Center, Texas.

Union, S. C.—Mr. P. I. Welles, manager, is reported as saying that the Union & Glen Springs Railroad has been completed, and that freight trains will now be operated. Col. T. C. Duncan is president of the line.

Union, W. Va.—The Monroe Central Railroad Co., which was incorporated last summer to build a line from a point near Patterson to Red Sulphur Springs and thence via Union to Ronceverte, is reported to have completed a survey as far as the mouth of Indian creek on the Red Sulphur route, but it is also surveying for another route via Lindsides and Peterstown. E. C. Vincent is chief engineer.

Washington, D. C.—The Great Falls & Old Dominion Railroad Co. has, it is reported, elected John Leitch as president to succeed R. G. Weaver, who has disposed of his interest in the corporation to John R. McLean. It is also announced that a contract has been let to the George Westinghouse Company to complete the road.

Washington, D. C.—Reported that the Southern Railway will immediately improve the Yadkin Railroad from Salisbury to Norwood, N. C. W. H. Wells is engineer of construction.

Wheeling, W. Va.—The Ohio & Marshall Railroad Co., meeting at the office of W. H. Hearne, attorney, has elected directors, including Thomas M. Benner of Pittsburgh, Geo. L. Hibbs and I. W. Seamon of Uniontown, Pa.; A. J. Cochran of Dawson, Pa., and Jos. W. Barnes of Pittsburgh, Pa. D. F. Maroney, Farmers' Bank Building, Pittsburgh, was also present. The line is to extend from Wheeling to Waynesburg, Pa., and thence to the Connellsville coal fields. J. V. Thompson of Uniontown is said to be the principal owner of the line, which will develop coal lands. Mr. Maroney will secure rights of way.

Williamson, W. Va.—The Mingo County Coal & Timber Railroad Co. of Williamson has been incorporated to build a line from the mouth of Beach creek to the head of that stream. The incorporators are M. Z. White, John Strosnider, Everett Leftwich, G. R. O. Wiles and H. C. Strudwick, all of Williamson.

Wilmington, N. C.—The South Atlantic Terminal Co. has been chartered to build a railroad from Wilmington to Southport, N. C., 30 miles. The incorporators are H. A. Dougherty of New York, D. W. Bullock, W. M. Bellamy, Geo. L. Morton, C. T. Bennett, J. H. Hinton of Wilmington, Mr. Dougherty has 295 shares; the others one share each. The company may at first build only from Navassa to Southport, later extending to Wilmington.

Woodville, Miss.—Reported that the Foster Creek Lumber Co. will build a railroad from east to west through the northern part of Wilkinson county.

Yazoo City, Miss.—The Yazoo City & Mem-

phis Railway Co. has applied for a charter to build a line from Jackson via Yazoo City to Memphis, Tenn., about 200 miles. The incorporators are I. H. Barnwell, E. S. Crane, Ben Exum, W. H. Madden and others of Yazoo City.

Street Railways.

Birmingham, Ala.—The Birmingham Railway, Light & Power Co. has applied for a franchise to build several extensions in the city. It is also reported that the company will extend its line two and one-half miles from Wylam to Dolomite.

Charleston, W. Va.—The city council has granted the franchises asked for by the Kanawha Valley Traction Co., represented by W. E. Chilton.

Durant, I. T.—Dr. James L. Shuler will, it is reported, apply for a street-railway franchise in Durant.

Gallatin, Tenn.—The Gallatin & Suburban Railway has been incorporated by C. H. Fidler, G. N. Guthrie, T. D. Holden, H. T. Lucas and J. D. G. Morton.

Greenville, S. C.—The Greenville Traction Co. it is said, will build a spur track to reach the new fair grounds on the Sans Souci plantation.

Jacksonville, Fla.—An ordinance has been approved granting a franchise for a street railway to T. R. Osmond of Jacksonville and associates.

Norfolk, Va.—Reported that a syndicate has been formed to build a railroad five miles long from Ocean View to Pine Beach. Herbert L. Smith, A. W. Perry and others are said to be interested.

Palestine, Texas.—Reported that capitalists of Palestine and Northern cities contemplate building a street railway, together with a gas, electric-power and heating plant.

Kansas City, Mo.—The Metropolitan Street Railway Co. will, it is reported, reconstruct several of its lines with new rails.

Louisville, Ky.—The Louisville Railway Co. is reported to have completed and put in operation its line from the city limits to Okalona, eight miles.

Sedalia, Mo.—Reported that the property and franchises of the Sedalia Water & Light Co., the street-railway company and the Sedalia Gas & Fuel Co. have been sold to a Boston and New York syndicate, and also that \$600,000 will be spent to extend the railway and make other improvements.

Selma, Ala.—Mr. C. S. Shuford, superintendent of the Selma Street & Suburban Railway Co., informs the Manufacturers' Record that the company will extend its line, and will purchase rails, ties and rolling stock.

St. Louis, Mo.—It is reported that the St. Louis, St. Charles & Western Electric Railway from St. Louis to St. Charles, about 20 miles, which will be sold at receivers' sale on July 17, will be purchased by the United Railways of St. Louis, which proposes to establish a suburban system.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Agricultural Machinery.—F. Norris, P. O. Box 271, Bulawayo, South Africa, wants to correspond with American manufacturers of agricultural machinery.

Boiler.—Ronda Coop & Egg Case Co., Ronda, N. C., is in the market for a second-hand 25-horse-power return-flue stationary boiler. (See "Engine and Boiler.")

Boiler.—The Guthrie Laundry Co., Guthrie, O. T., will want a 100-horse-power boiler.

Boilers.—R. L. Wilson, president Central Oil & Fertilizer Co., Cordele, Ga., wants prices on two 150-horse-power boilers.

Boilers.—See "Engine and Boilers."

Boilers.—Bids will be received until June 13 at the Department of the Interior, Washington, D. C., for the installation of water-tube boilers for the Interior Department (old Postoffice Department) Building, Washington, in accordance with specifications and

drawings, copies of which may be had upon application to the chief clerk of the department; E. A. Hitchcock, Secretary.

Bottling Equipment.—See "Sauce-factory Equipment."

Brick Machinery.—Alvin Dry Press Brick Co., W. Weyant, president, Alvin Texas, is in the market for complete equipment for dry-press brick plant.

Bridge Construction.—Bids will be received until June 15 by the city council, Charleston, W. Va., for the construction of a truss bridge across the Elk river, connecting Charleston and Lovell streets. Plans and specifications may be seen at office of W. A. Hogue, city engineer. City council reserves usual rights. For further information address the city engineer.

Bridge Construction.—Henry L. West, John Biddle, commissioners, Washington, D. C., will receive bids until June 15 for the construction of six concrete steel bridges (spans varying between 9 and 20 feet) in the District of Columbia. Blank forms of proposals, specifications and all necessary information may be obtained at the office of the engineer commissioner, District of Columbia.

Building Material.—C. B. Boyett, recorder, Trimble, Tenn., will be in the market for building material for brick school building.

Building Materials.—W. T. Jones, Santuck, S. C., wants doors and sash.

Cement.—Hopkinsville Water Co., Hopkinsville, Ky., wants prices on Portland Cement.

Cement.—Lockwood, Greene & Co., Boston, Mass., and Greenville, S. C., will purchase cement in the open market for cotton-mill construction work near Spray, N. C.

Cooking Equipment (Steam).—See "Sauce-factory Equipment."

Crayon Machinery.—Robert L. Steele, Rockingham, N. C., wants addresses of manufacturers of machinery for making mill crayon from kaolin.

Dam Construction, etc.—Winchester & Washington City Railway Co., Winchester, Va., wants bids from contractors for building concrete dam and masonry.

Dredging, etc.—Bids will be received until July 3 at the engineer office, United States Army, Room 2, Custom-house, Norfolk, Va., for dredging and removing wreck in Norfolk harbor, Virginia. Information furnished on application; E. Eveleth Winslow, captain, engineers.

Dredging.—Bids will be received until June 30 at the United States engineer office, Savannah, Ga., for dredging in harbor at Savannah, Ga. Specifications, blank forms and all available information furnished on application; James B. Quinn, lieutenant-colonel, corps of engineers.

Drill.—Hubert Raven, Elkton, Va., is in the market for a rock drill for manganese prospecting.

Electrical Equipment.—Winchester & Washington City Railway Co., Winchester, Va., wants bids on electrical equipment.

Electrical Equipment.—W. H. Maury, Pelham, Ga., will want improved motor drive in connection with machine tools. (See "Machine Tools.")

Electrical Equipment.—See "Water-works Equipment."

Electrical Equipment.—Dozier & Gay Paint Co., Jacksonville, Fla., wants electric motor.

Engine.—W. T. Jones, Santuck, S. C., is in the market for a gasoline engine.

Engine.—E. C. Hale & Co., Brooksville, Fla., wants a two to two-and-one-half-horse-power gasoline engine suitable for installation in 15 to 18-foot boat.

Engine.—Jonesboro Yarn Mill, Jonesboro, Tenn., is in the market for engine (Corliss type preferred), 200 horse-power, 120-pound pressure. Name time limit for installation.

Engine and Boiler.—Ronda Coop & Egg Case Co., Ronda, N. C., is in the market for 18 to 20-horse-power C. C. engine and 25-horse-power return-flue stationary boiler; second-hand.

Engine and Boilers.—Lockwood, Greene & Co., Boston, Mass., and Greenville, S. C., will want an engine of about 500 to 600 horse-power and boilers to match for cotton mill near Spray, N. C.

Gas Plant.—City of Newport, Ky., will receive bids until June 8 for supplying the city with gas for a period of 20 years; Peter J. Krebs, city clerk.

Heading Machinery.—L. T. Wilson Cooperage Co., Ltd., Rayville, La., is in the market for machinery and equipment for heading factory.

Heating Apparatus.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will open bids June 27 for furnishing steam-heating apparatus complete in place for the United States postoffice and courthouse, etc., at Grand Forks, N. D.,

In accordance with drawings and specifications, copies of which may be had at office of supervising architect, or at the office of the superintendent at Grand Forks, N. D., at the discretion of the supervising architect.

Ice Plant.—Plaquemine Consumers' Ice Co., Plaquemine, La., wants prices on equipment for 20-ton ice plant.

Insulator Pins.—Liberty Chair Co., Liberty, N. C., wants to correspond with dealers in insulator pins for telephone poles.

Kaolin Machinery.—See "Crayon Machinery."

Levee Work.—J. T. McClellan, president board of commissioners Fifth Louisiana Levee District, Tallulah, La., will receive bids until June 20 at the office of the United States engineer, 108 West Crawford street, Vicksburg, Miss., for a quantity of levee work. Deposit in cash or certified check must accompany each bid. Full information, together with blank forms of proposal, may be obtained at the office of the board of State engineers, New Orleans, La., or at the office of the Fifth Louisiana Levee District, Tallulah, La. Usual rights reserved.

Levee Work.—Board of Commissioners of the Texas Levee District will receive bids until June 20 at the office of the United States engineer, 108 West Crawford street, Vicksburg, Miss., for a quantity of levee work in Arkansas.

Lumber.—W. T. Jones, Santuck, S. C., is in the market for poplar lumber.

Machine Tools.—W. H. Maury, Pelham, Ga., is in the market for one 24x14-inch lathe, one 16-inch shaper, one 4-foot radial drill, all to be equipped with improved motor drive; one 6x6-inch power hack saw and one water tool grinder.

Manufacturers.—S. Mouchier, Constantine, Algeria, wants to correspond with American manufacturers of hardware, cordage, twines, axles, springs, agricultural and industrial machinery, hides, leather and windmills and other manufactured products; also wants to communicate with exporter of petroleum; also with contractor to build an oil refinery for the production of gasoline for automobiles.

Marine Engine.—See "Engine."

Marine Machinery.—John W. Harvey, 21 Broad street, Rome, Ga., wants addresses of manufacturers of portable propellers for small boats; want one operated with flexible shaft and arranged so that it may be raised or lowered in the water.

Minerals.—R. H. Motshaw & Co., No. 9 Love Lane, Mazagon, Bombay, India, wants addresses of American firms trading in mica, garnet, graphite, asbestos, gadolinite, feldspar and quartz.

Motor-car Materials.—H. Zornow, Altona (Elbe), Germany, is in the market for motor-car materials—bodies in the white, seats, bent timber for car bodies, artillery wheels, hubs or naves, axles, chasses, etc.; quote prices f. o. b. New York for cash.

Paint-factory Equipment.—Doxler & Gay Paint Co., Jacksonville, Fla., wants paint-grinding machinery, lead kegs, cans, labels, etc.

Pasteboard and Paper Machinery.—Otto A. Barleben, Dortmund, Germany, is in the market for special machinery for pasteboard and paper factory.

Paving Materials.—Sealed proposals for treated plank and paving blocks will be received by the Board of Awards of Baltimore, Md., at the office of the city register, City Hall, until 11 A. M., June 14. Specifications and proposal sheets can be had at the office of B. T. Fendall, city engineer, City Hall. Usual rights reserved.

Pickling-plant Equipment.—See "Sauce-factory Equipment."

Piping.—G. W. Newman, Dixie, I. T., wants prices on pipe from one-half to one and one-quarter inches.

Piping.—See "Water-works Equipment."

Printing-plant Equipment.—The Florida Printing & Improvement Co., Jacksonville, Fla., wants prices on type and other printing materials, typesetting machines, newspaper and other paper stock.

Pump.—Harry Sudlow, manager the Carolina Light & Power Co., Aiken, S. C., wants a deep-well pump to lift water out of an eight-inch well 550 feet deep; total lift from top of water at working level to top of ground 350 feet.

Pump.—See "Water-works Equipment."

Pump.—W. T. Jones, Santuck, S. C., is in the market for a pump.

Railway Equipment.—E. F. McRae, secretary-treasurer McRae & Dublin Railway, McRae, Ga., wants a small locomotive or dummy in good repair.

Railway Equipment.—Jos. E. Bowen, Atlantic Office Building, Norfolk, Va., is in the

market for 15 3/4-inch-gauge Russell No. 2 second-hand log cars in good order, delivered through Norfolk.

Railway Equipment.—Tar River Lumber Co., Rocky Mount, N. C., wants one mile of 16-pound T rail; to be best quality of steel, either new or strictly straight and good relayers. Quote price f. o. b. Rocky Mount, N. C.

Railway Equipment.—C. S. Shuford, superintendent Selma Street & Suburban Railway Co., Selma, Ala., will be in the market for cars and trailers, rails and ties for street railway.

Railway Equipment (Electrical).—F. A. Pierce, Room 20, Noble Building, Ardmore, I. T., wants addresses of firms handling electrical-railway equipment.

Railway Equipment (Electrical).—I. Mounzon, Georgetown, S. C., wants four miles of street-railway rails, second-hand if in good condition, and heavy enough to haul occasional railroad solid cars; two street-railway passenger coaches capable of seating 30 to 40 people and equipped with 500-volt D. C. motors, one freight car equipped with 500-volt D. C. motor, overhead construction and bonding. Will buy cars second-hand if same are practically new.

Road Machinery.—J. B. Winslett, city secretary, Dallas, Texas, will receive bids until June 13 for an 8 or 10-ton steam roller for street work. Usual rights reserved.

Roofing.—R. L. Wilson, president Central Oil & Fertilizer Co., Cordele, Ga., wants prices on roofing.

Sewerage System.—Sealed bids addressed to R. B. Dickey, city secretary, Waco, Texas, will be received by Jas. B. Baker, mayor and the chairman of the public-improvement committee of the city council, until June 22 for furnishing all material, tools and labor and constructing a storm sewer on 18th street, to be five feet inside diameter and constructed of brick in accordance with specifications on file in the city engineer's office. Certified check for \$250 must accompany each bid.

Shingle Machinery.—A. T. Byrd, Carversville, Va., is in the market for shingle machinery.

Stamped Tinplates.—Sealed proposals addressed to the Board of Awards will be received by the City Register, City Hall, Baltimore, Md., until 11 A. M. June 14 for furnishing 46,700 stamped tin license plates. Samples of plates can be seen at office of the collector of water rents and licenses, J. Spencer Clarke, City Hall. Usual rights reserved.

Starch Machinery.—W. C. Barker, 1913 Pacific street, Tlona, Philadelphia, Pa., wants addresses of manufacturers of corn and potato starch machinery.

Sauce-factory Equipment.—The Red Sauce Pepper Co., Centerville, Miss., wants a machine for separating pepper-pulp from skin and seed that will not crush seed of pepper; bottling machine to bottle one-ounce bottles, onion slicer and parer (machine for preparing powdered mustard from seed if at all practical), steam cooking outfit for making sauces, catsups, etc.

Saw-mill.—Ohio-Pennsylvania Lumber Co., Creola, Ala., wants a saw-mill with a capacity of 20,000 feet; no power; in good condition.

Steamfitting Tools.—The Peck-Hammond Company, 124 East Pearl street, Cincinnati, Ohio, wants catalogues and prices on a complete line of steamfitting tools; new or second-hand.

Steel-working Machinery.—Otto A. Barleben, Dortmund, Germany, is in the market for machinery for making steel-wire fencing; also for making rivets of the larger size by the Cole process; one which is capable of working drawn wire of five-eighths of an inch into rivets with specially large heads.

Tank.—W. T. Jones, Santuck, S. C., wants a tank.

Tank and Tower.—See "Water-works."

Telephone System.—W. A. Cooper, chairman police committee, Raleigh, N. C., will want to correspond with firms relative to installing police signals and telephone system.

Tower.—See "Water-works Equipment."

Typesetting Machines.—See "Printing-plant Equipment."

Veneer Manufacturers.—Salem Machine Works, Salem, Va., is in the market for three-ply veneered panels 24x30x1/4 inches thick.

Wagon Manufacturers.—W. A. Cooper, chairman police committee, Raleigh, N. C., wants to correspond with builders of patrol wagons.

Water-works Equipment.—City of Vidalia, La., will receive bids until June 20 for one duplex pump, one elevated water tower, one triplex pump and electrical motor, and 6000 feet of six-inch cast-iron pipe. Certified

check for 20 per cent. of amount of proposal must accompany each bid. Specifications and form of bid may be had by addressing John S. Boatner, Jr., mayor, Vidalia, La., or M. Griffin O'Neil, engineer, No. 506 North Texas Building, Dallas, Texas. Usual rights reserved.

Water-works.—Water-Works Commission, Bishopville, S. C., will receive bids until July 17 for the construction of a system of water-works, embracing the following items: Pumping plant and power-house, steel tank and tower, cast-iron mains 6 inches to 10 inches, hydrants and valves. Plans and specifications are on file at office of Charles C. Wilson, C. E., Columbia, S. C., and at the office of J. C. Rhame, clerk, Bishopville. Usual rights reserved.

Windmill.—W. T. Jones, Santuck, S. C., wants a windmill.

Woodworking Machinery.—Jackson Bros. Lumber Co., Vereen, Fla., is in the market for two second-hand flooring machines; must be in A1 condition.

Woodworking Machinery.—Liberty Chair Co., Liberty, N. C., will have refuse from its mill in the nature of square blocks 8, 10, 12, 14, 16 and 18 inches long and 1 1/2 inches square. It wants to manufacture marketable articles from these blocks and invites information and prices on the machinery required.

Woodworking Machinery.—See "Heading Machinery."

Woodworking Machinery.—See "Shingle Machinery."

Woodworking Machinery.—Otto A. Barleben, Dortmund, Germany, wants estimates from American manufacturers on complete equipment for turning small wood screws.

To Represent Bonar.

Messrs. James Bonar & Co., Inc., Pittsburgh, Pa., have made arrangements with the Bennett Engineering & Steam Specialty Co., Arcade Building, Cleveland, Ohio, to represent them in all their specialties in the Cleveland district. George G. Bennett until recently was State examiner of engineers in Cleveland district, and his partner, R. J. Blissett, has also been prominent in engineering circles.

INDUSTRIAL NEWS OF INTEREST

Partner for Manufacturing.

A partner is wanted to furnish a small amount of capital for manufacturing an article for daily consumption. Apply at 2104 McCulloch street, Baltimore.

Foos Mills for Sale.

Two No. 19 Foos mills, 36 inches, in first-class condition, are offered for sale by D. O'Sullivan, Richmond, Va. He also offers a Woods planer for heavy timber.

Wants Chesapeake Bay Farm.

Byron Sutherland of 720 Phoenix Block, Minneapolis, Minn., wants a small farm on Chesapeake bay near railway station or steamboat landing. Send full details.

Tract of Timber Offered.

The timber on 565 acres of land in Ohio county, Kentucky, is offered for sale. Poplar, ash, elm, walnut, etc., can be cut, and the property is a good site for a mill. For particulars address Wm. M. Warden, Centertown, Ky.

In Memory of H. Mueller.

On Memorial Day the employees of the H. Mueller Manufacturing Co. decorated the grave of the late H. Mueller, founder of the company, at Decatur, Ill. The great esteem in which Mr. Mueller was held by all of his many employees has always been worthy of note.

A Stanley-G. I. Electric Sale.

Another important Southern sale has been made by the Stanley-G. I. Electric Manufacturing Co. of Pittsfield, Mass., Atlanta (Ga.) offices in the Empire Building. This sale is a 1200-kilowatt alternating-current generator, with appurtenances, for the Montgomery (Ala.) Water, Light & Power Co.

Chemical Engine for Sale.

A 60-gallon combination chemical engine, with ladders and space for 500 feet of hose, and a hose wagon are offered for sale. The machines have had but little service, and are especially suitable for large industrial plant or mill village. Address the Mill Fire Department, Columbia, S. C., for prices.

Flour Mill and Elevator.

A flour and corn mill and elevator located in a prosperous city in the South—30,000 inhabitants—is offered for sale. Plant has capacity for 300 barrels of flour and 1000 bushels

MEXICO.

Concentrating Plant.—J. A. Soram of Boston, Mass., is reported as preparing to arrange for the erection of a 250-ton concentrating plant in the Guanacavi mining district, where he operates mines.

Gold-Silver Mining.—Refugio Hernandez of Etzatlán, Jalisco, will develop silver-gold-lead veins.

Mineral Lands.—Thomas P. Rowe of Caracas, San Luis Potosí, has filed claim to mineral lands, intending to develop the properties.

Mining.—Incorporated: The Livingstone Mining Co., with capital stock of \$100,000, by Archibald Hart and Waldemar Julsrud of the City of Mexico, L. M. Lowden of Guthrie, O. T., and others.

Mining.—Reports state that the Sierra Madre Mining Co. has been incorporated, with capital stock of \$500,000, to develop mines in Mexico, the president being I. L. Fairbanks of Augusta, Maine.

Mining.—Incorporated: The San Luis Mining Co. of Zacatecas, Mexico, capital stock \$20,000, by A. A. Billingsley, Henry Lucas and A. J. Nix, all of Fort Worth, Texas; A. J. Irvin of Galveston, Texas; J. W. Simmons of Cleburne, Texas, and T. W. Nebitt of Saltspe, Mont.

Silver-Gold Mining.—Juan N. Soto of Etzatlán, Jalisco, will develop silver-gold veins.

Smelter.—J. F. Johnson has received a concession for the erection of a smelter at Jimenez, Chihuahua. He proposes erecting a 500-ton smelting plant to cost \$100,000, and will organize a stock company with capital of \$3,000,000 to operate the smelter and develop mines.

Zinc-Silver Mining.—A. B. Myers of Tepic, Jalisco, proposes developing a zinc-silver property.

Railways.

Steam Railroad.—D. P. Doak of St. Louis, Mo., president of the Pan-American Railway, is reported as saying that considerable construction and reconstruction will be done on the line. C. B. Cox, assistant general manager, has charge of construction. J. M. Neeland is vice-president and general manager.

of corn. It is in a wheat-growing district, and is doing a profitable business. For full particulars address Box 83, Roanoke, Va.

Pump Works for Sale.

A Southern enterprise in the manufacturing class is offered for sale. It is the Millington Pump Works, located at Millington, Tenn., and covers about 15 acres of land. The plant is equipped for manufacturing wood pumps, tubing, porch columns and all kinds of wood turnings. It may be bought as a whole or separate, to suit purchaser.

Bowen Takes More Contracts.

Joseph E. Bowen, the well-known equipment man of Norfolk, Va., has accepted orders as follows: One Atlantic-type locomotive and 14 cars for Norfolk County Timber Co. of Norfolk, four cars for Roanoke Railroad & Lumber Co. of Norfolk, 10 cars for Durham & Charlotte Railroad, and four passenger cars for Suffolk & Carolina Railroad of Suffolk.

Birdsboro Co.'s Philadelphia Office.

The Birdsboro Steel Foundry & Machine Co. of Birdsboro, Pa., has opened an office at 718 Real Estate Building, Broad and Chestnut streets, Philadelphia, and placed J. P. Warfel in charge. Mr. Warfel has represented the company in this section for some time and has met with great success. Any inquiries addressed to the Philadelphia office will receive the same prompt attention as though directed to the home office at Birdsboro.

New Sanitary Sewer Inlet.

B. F. Nicholas of Renova, Pa., inventor of a cast-iron sanitary sewer inlet, is desirous of introducing his specialty in Baltimore and is seeking to interest someone who will act as agent for the device. In view of the great amount of sewer work to be undertaken in this city and now in progress, there is evidently a good opportunity for the Nicholas invention. The inlet is to be put on exhibition if arrangements can be made for representation.

Eagle Iron Works of Norfolk.

Norfolk is a center for a number of miscellaneous industries catering to the needs of that city and vicinity. Among them is the Eagle Iron Works, which has a general plant for foundry work, pattern making, machine shops and blacksmithy, all equipped with the

best machinery and the latest improved appliances for producing the highest quality product at minimum prices. Grate bars are a specialty with the company. Write the Eagle Iron Works at Norfolk, Va., for prices before placing your orders.

Water-Front Sites at Norfolk.

There can be no question as to the value of water-front sites at Norfolk for industrial purposes. The city's numerous advantages for obtaining a supply of raw materials and plenty of labor are also well known. Messrs. Page & Taylor of 55 Granby street, Norfolk, Va., own and control over 500 acres of deep-water front and belt-line property adapted for industrial uses, which they are offering for sale at prices that will afford buyers good investment returns or for immediate use as factory sites. Write them for details.

Big Concrete-Steel Dam.

The Missisquoi Pulp Co., Sheldon Springs, Vt., has contracted with the Abertaw Construction Co. of Boston to build a concrete-steel dam across the Missisquoi river. The dam will be about 300 feet between abutments and at all heights from 15 feet to 38 feet. The engineers of the dam are the Amburson Hydraulic Construction Co., 176 Federal street, Boston, Mass., and the design is such to warrant the dam against the heavy ice gorges which in the past have carried over several crib dams at that point. Work will be commenced immediately.

Obtains Southern Electric Contracts.

The city of Fort Valley, Ga., has awarded contract for 108-kilowatt, 60-cycle, 2-phase, 2300-volt generator, with exciter and switchboard: 20 6.6 amperes, series A. C. lamps, lighting transformers. The city of Hartford, Ala., has awarded contract for 80-kilowatt, 2-phase, 2300-volt, 60-cycle generator, exciter and switchboard, arc lamps, lighting transformers, etc. It is interesting to note that both of these contracts were awarded to the Stanley-G. I. Electric Manufacturing Co. of Pittsfield, Mass., offices at Atlanta, Ga., in the Empire Building.

Engine Builders Want Representative

An unusually good opportunity for a competent man to become the representative of well-known engine builders is now offered. The engine builders referred to have their product in use in thousands of establishments from Maine to California. They are desirous of engaging a high-class man to represent them in Atlanta, the territory to be covered to include Georgia and North and South Carolina. Inquirers should give as many particulars as possible in first letter, and correspondence addressed "Competent," care of the Manufacturers' Record, will be forwarded.

Mobile's Yacht and Power Plant.

Among the leading enterprises of Mobile, Ala., is the plant of the Craftsman Yacht & Power Co., which recently incorporated with a capital stock of \$35,000. This company's building measures 70x125 feet, and is located on the river front, with extensive facilities for shipbuilding and the launching of boats. The plant is operated by a high-grade gasoline engine. Its facilities provide for the construction complete of boats from six feet long up to any size desired in launches, sailing yachts, houseboats, barges, canoes, etc. L. W. Pietsch is president and manager of the company; A. Eagon Arbuckle, secretary, and Clark Washburne, treasurer.

Succeeds Bowen & Street, Suffolk.

Buyers throughout the South and in other sections of the country will recall the complete facilities which the Bowen & Street Equipment Co. of Suffolk, Va., has been offering. They are advised to note that the company has been succeeded by J. H. Macleary, who will continue to serve the public, offering locomotives, steam skidders, steam and electrical machinery, logging cars and other railway equipment, railway supplies, etc. Mr. Macleary will also continue the operation of the shops and contracts for general machinery repair work. He is prepared to submit estimates to companies in the market for any of the class of equipment and supplies he offers for sale or to repair.

Modern Lock-Joint Pipe.

Lock-joint pipe is doubtless destined to be in great demand because of its superior features. The Lock Joint Pipe Co. of 346 Broadway, New York, is manufacturing its pipe of cement or concrete, which is divided longitudinally and locked by a key. This pipe is to be used for protection of piles against teredo and other marine wood borers, and for culverts, sewers, conduits, etc. The advantage of this pipe when used as pile protection is that it may be applied after the trestle has been decked, and thus in no way interferes with the construction of the trestle,

and when laid as a culvert or sewer the top half breaks joints with the bottom half, thus eliminating any vertical joint entirely through the pipe.

S. M. Price Machinery Co.

Manufacturers and other users of power-plant or of woodworking and iron-working machinery will be interested in having called to their attention that the S. M. Price Machinery Co. of Norfolk, Va., is prepared to serve them in the installation or equipment of plants. The S. M. Price Machinery Co. has connections with the best machinery builders in the country, and has a corps of skilled construction engineers who will furnish estimates on complete steam-power plants, power-transmission installations, woodworking equipment and iron-working machinery of all descriptions. The company is the Virginia, North Carolina and South Carolina agent for the celebrated engines and boilers built by the Erie City Iron Works.

Rankin-Tuck Paint Co. Improvements

Owing to the increasing demand for its product, the Rankin-Tuck Paint Co. of Birmingham, Ala., has arranged to largely improve its facilities. It has increased capital stock to \$25,000, and is now purchasing machinery for the purpose of making its own material for both retail stores in Birmingham and supplying the jobbing trade. The Rankin-Tuck Paint Co. will manufacture a high-grade paste paint, a high-grade liquid paint and a cheaper liquid paint; also stains, buggy paint, enamels and other products, for which there is a steady demand in the Birmingham district. Window glass will also be handled, and the company expects to double its business. It is probable the company will increase its capital stock to \$100,000 next spring.

E. M. Herr, First Vice-President of Westinghouse.

The Westinghouse Electric & Manufacturing Co. has elected E. M. Herr first vice-president and chief executive under the president. The advent of heavy electric traction and the adoption of electricity by main-line railways render the services of a man skilled not only in manufacture, but also conversant with railroad operations, especially desirable at this time. Mr. Herr was a locomotive superintendent of the Northern Pacific Railway for years, and previous to that had many years' experience in various positions on important railways in the West. For the last seven years he has been vice-president and general manager of the Westinghouse Air Brake Co. The Westinghouse Electric & Manufacturing Co. has now four vice-presidents—E. M. Herr, Frank H. Taylor, L. A. Osborne and Newcomb Carlton.

Locks for Industrial Plants.

The subject of a master-key system is of great importance to an industrial plant, and especially so to a large plant. Many plants do not lock up at all simply because of the inconvenience involved; others have a locking system with an endless number of keys, and each individual key must be hunted up before that door is opened. In cases of emergency this becomes a matter of considerable danger. All of these objections the master-key locking system eliminates. The proper person can always hold a key to pass the doors, lockers, etc., under their jurisdiction, while, with the Yale duplex-locking system, security is still retained. There is one feature of this matter which appeals still more strongly to the managers of many plants, and that is the resulting economy. One plant in Connecticut said that the system paid a quarter of its cost in the first six months. This saving was effected by the recovery of tools from tool chests where they did not belong, etc., instead of being obliged to purchase new tools. Yale locks are known all over the world. They are for factory use, for any use and are most secure. Two little folders, "The Key to a Good Thing" and "Concerning the Yale Lock" explain fully the mechanism and points of superiority of the Yale lock. The lock-equipment folder gives in a condensed form a great deal of information which anyone who has to do with the matter of locking up a factory will be pleased to have at hand. The long brown folder entitled "One Key Enough" contains in a condensed form much of the same material. The Yale & Towne Manufacturing Co., 9 Murray street, New York, can be addressed for further facts.

TRADE LITERATURE.

Link Belting and Sprockets.

The Cross Engineering Co. of Carbondale, Pa., has issued in convenient form a price-list of its detachable link belting and sprocket wheels. This list will be found of use to buyers who need supplies of that

character for use in the various industries requiring them. The Cross Engineering Co. manufactures a general line of materials, like screens, rolls, elevators, perforated metals, etc., needed for mining operations, quarrying, etc.

A Haberkorn Reminder.

An illustrated card now being issued by the Haberkorn Engine Co. of Fort Wayne, Ind., reminds power-users of the fact that the Haberkorn engine is a fuel-saver. A picture of the class "A" engine is presented on the card, and requests for catalogue are invited.

Johnston Glass Works.

One of the best-known makers of window glass, ground and chipped, is the Johnston Glass Co. of Hartford City, Ind. This company has issued a ticket of admission to its three plants at Hartford City and Dunkirk, Ind., and Independence, Mo., and has honored the Manufacturers' Record with one.

Are Lamps and Portable Instruments.

Circulars Nos. 1102 and 1104 of the Westinghouse Electric & Manufacturing Co. of Pittsburg refer to the Westinghouse direct-current multiple arc lamp for 110 and 220 volts and to the Westinghouse portable instruments. These are timely publications, and should be examined by dealers in and users of electrical equipment and supplies.

The Albany Grease Calendar.

Users of lubricating materials will find the Albany Grease Calendar a handy little publication. It will not only serve as a calendar proper, but will remind those who receive it of the superior features of the Albany Grease. Messrs. Adam Cook's Sons, 313 West street, New York, the only makers, are sending the calendar to people interested in modern lubricants.

S. K. C. Transformers.

Bulletin No. 115 has been issued by the Stanley-G. I. Electric Manufacturing Co. to present all the facts regarding its S. K. C. type B. O. lighting transformers, oil-insulated. These transformers have met with a phenomenal success, and electrical engineers or operators of plants who may not be acquainted with their features are invited to send for the bulletin; Offices at Pittsfield, Mass.

Fred W. Wolf Supplies.

The Fred W. Wolf Company recently issued its new No. 11 ammonia fittings and refrigerating machinery supplies catalogue. Among the material and supplies listed discounts are being quoted on ammonia valves, fittings and supplies, hex nut ammonia bolts and ice tools. Attention is called to error on page 106 of the catalogue, viz., first item, anhydrous ammonia for Alabama, which should read \$0.28 per pound. The Fred W. Wolf Company is of Chicago.

Society of Refrigerating Engineers.

A neat pocket-book has been issued of the constitution and by-laws, officers and charter members of the American Society of Refrigerating Engineers. This little publication will be of use and interest to the ice and refrigerating industry throughout the country and to the builders of modern equipments for ice manufacturing and refrigeration. The society was organized last December and has progressed rapidly since its inception. Its home is at 258 Broadway, Suite 806, New York.

"A. P. C." Cooker and Press.

The continuous machinery of which the American Process Co. is patentee and manufacturer is in use by various establishments in the manufacture of fertilizer and oil from fish and of similar products from garbage. It is constructed upon lines that tend to obtain all the possible useful parts of the material treated, and is fully described in an illustrated leaflet now being issued, and copies of which will be sent to inquirers who are interested in this class of mechanical equipment. Write the offices at 62 William street, New York.

Distributing Center of the Southwest.

There can be little doubt but that a great future awaits the city of Houston, Texas. Situated as it is, Houston has been often referred to as the commercial gateway of the trans-Mississippi, the distributing center of the great Southwest. Ever on the alert to advance the mercantile and manufacturing progress of Houston, the Houston Business League has just issued a new edition of its booklet illustrative and descriptive of the great advantages of Houston and its surrounding territory as a location for the establishment of various kinds of business enterprises and the erection of manufacturing plants. Write for a copy of the publication.

The Progress Reporter.

That interesting publication, the Progress Reporter, has some timely information in its May number, now being distributed. Its contents refer to the progress being made in the improvement and introduction of heavy machine tools, such as thread-milling machines, plate-bending rolls, boring and turning mills, portable hub drills, radial drills, milling machines, etc. Various machines of this class are pictured and described in the Progress Reporter. The latter is issued regularly by the Niles-Bement-Pond Company of New York city, manufacturers of the kind of tools referred to.

Marsh Boiler-Feed Pumps.

The Marsh Standard Boiler-Feed Pumps are illustrated and described in a booklet issued by the manufacturer, the American Steam Pump Co., Battle Creek, Mich. Sizes B to R are considered, with capacity ranging from 10 to 3500 horse-power. These pumps are self-contained, and the construction admits of a ready interchange of cylinders on either side, so that combinations suitable for any required duty may be made or any part easily removed for inspection or repair. They are self-governing, and cannot run away should suction be broken. Each pump is carefully tested before shipment.

Steam Boiler Inspection.

Some pertinent facts regarding the use of boilers and the means of preventing great disasters by explosion are presented in the April number of The Locomotive. This little publication is issued by the Hartford Steam Boiler Inspection & Insurance Co. of Hartford, Conn. Its issue referred to gives at length a history of the boiler explosion in the R. B. Grover plant at Brockton, Mass., in March last, at which great damage and loss of life resulted. Users of steam-power plants, engineers in charge of such equipments and others interested in this subject will find The Locomotive an instructive booklet.

Some Interesting Illustrations.

A leaflet now being distributed is most timely, inasmuch as it presents pictures of modern buildings in the erection of which the Palmer hollow-concrete block was used. The structures include the Lohr Building in Staunton, Va.; the Augusta Springs Lithia Co.'s bottling house at Augusta Springs, Va.; the Whitmore Hotel at Staunton, the United Brethren Church at Staunton, the Staunton Military Academy at Staunton and various other buildings. The blocks used were manufactured from Old Dominion Portland cement, of which the selling agent is the Wm. G. Hartman Cement Co., Real Estate Trust Building, Philadelphia.

German Wood Preservers.

Messrs. H. Goldschmidt & Co. of San Antonio, Texas, have issued a folder to give some facts about the celebrated German wood preservers, for which they are general agents for the United States and Mexico. These preservers are the product of the Chemische Fabrik Flossheim of Germany. They are Carbolineum I-a and Barol, either applied with a brush to protect wood surfaces. These preservers are used on all kinds of buildings, on boats and in various other ways. The farming community, manufacturers, railroad and street-car companies, telephone and telegraph companies and others will find the Goldschmidt folder contains some valuable pointers for their consideration. Write the firm.

Zehnder Valves and Brakes.

Timely literature is that which describes the Zehnder valves and brakes. These devices were originally adopted for the benefit of stationary steam engines and locomotives. The valves increase the speed of locomotives and show great economy in the saving of coal and water on all classes of engines. Illustrated descriptions and drawings of the Zehnder specialties are presented in Catalogue A of the manufacturer, and copies of it can be obtained on application. A complete detailed description is given. It tells about the special merits of these devices over others of the same class. The Zehnder Valve & Brake Manufacturing Co. of Scranton, Pa., manufactures the Zehnder valves and brakes.

New Air Compressors.

The American Air Compressor Works, 26 Cortlandt street, New York, has just published a bulletin, 16 pages 6x9 inches, illustrating and describing a few of the company's new types of air compressors. Copies of this bulletin will be sent gratis upon request. Users of high-duty vacuum pumps will be interested in the machines, made in many sizes, small as well as large, both steam and power driven. There is also listed a small belt machine suitable for operating a few air holsts, pneumatic stone tools, etc.,

or for experimental, laboratory or vacuum purposes, especially where the requirements are small. The American Air Compressor Works makes a large number of styles and sizes, all of the best workmanship and materials and strictly guaranteed.

Book on Sheet and Tin Plate.

The American Sheet & Tinplate Co., Frick Building, Pittsburg, has had printed a new reference book containing information and tables regarding its iron and steel sheet and tin and terne-plate products. This publication is of a form and size convenient for the vest pocket. It contains an interesting historical reference to the iron industry; also to tin and terne-plate making, besides the complete facts as to American products, price-lists, illustrations, etc. Requests for a copy of the reference book must be accompanied by the price—\$1—unless the writer uses black or galvanized sheets, tin or terne plates or formed roof materials. In these cases the book will be sent free if the writer uses his business letter-sheet. Address the company's advertising department.

Marine Iron Works Data.

A 1905 supplement to No. 15 catalogue of the Marine Iron Works has been issued. It contains descriptions and illustrations of a few of the many different sizes and types of marine engines and boilers the company has built recently. It is hardly possible to catalogue all the company's work, particularly the larger compound and triple expansion marine engines, but prospective buyers will be furnished on application all necessary details pertaining to any such machinery that is within the company's range of sizes. Attention is called to the Marine Iron Works' specifications in the supplement for its marine boilers. Their proportions and design are the result of many years' experience. Write the Marine Iron Works at Station A, Chicago, Ill., for copies of supplement.

Notes of a Tourist.

An unusually interesting booklet is "Notes of a Tourist," by Harry Stilwell Edwards. It is a veritable word painting of an especially beautiful part of the South—the Tallulah Falls section in Georgia, where the Tallulah river and its tributaries break through the Georgia spur of the Blue Ridge mountains. The little book has been issued for private circulation by the passenger department of the Tallulah Falls Railway. Lumbering, farming and stock-raising lands, valuable water-powers and other properties capable of development on modern plans abound in the Tallulah land, and the climate is not more healthy in any other part of the United States that could be named. W. S. Erwin, general manager of the railway company, office at Cornelia, Ga., can supply copies of the booklet.

Referring to Cooper-Hewitt Lamps.

Mention was recently made of the interesting illustrated publication issued to tell about the Westinghouse Companies in the railway and industrial field. It is pertinent to mention also that several of the most interesting of the publication's pages relate to the Cooper-Hewitt mercury-vapor lamp. This lamp represents an entirely new departure in the field of electric lighting. It produces light through the incandescence of the vapor of mercury, which is enclosed in a sealed glass tube about one inch in diameter and varying in length for general illumination from 17 to 45 inches. Thousands of these lamps are in use in public structures, mechanical plants, machinery-building establishments and elsewhere. They are manufactured by the Cooper-Hewitt Electric Co., 220 West 39th street, New York.

Holmes Metallic Packing.

Engineers should inform themselves as to the merits of the Holmes metallic packing, details of which are presented in an illustrated booklet now being distributed. This packing is made of the same material as the piston rings and cylinders of engines and will therefore prove extremely durable in actual practice. It is not a new packing, but is in new hands, which are determined to supply users the best packing producible. It is in use on marine, stationary and locomotive engines, and is pronounced by experts to be of the highest grade obtainable. Economy and efficiency are served to the greatest degree by using the Holmes improved piston-rod and valve-stem packing. The manufacturer is the Holmes Metallic Packing Co., reorganized by consolidation with Geo. D. Rollins & Co., sole owners, Wilkesbarre, Pa.

Water-Power Equipment—Low Heads.

An illustrated publication that will appeal to people interested in the utilization of water-power properties is the book on water-power equipment for low heads issued by

the Wellman-Seaver-Morgan Company, engineers and manufacturers, of Cleveland, Ohio. This company is one of the best and most widely known, and it is prepared to build and install high-grade water-power equipment of the highest efficiency, and especially to meet the local conditions and requirements in any given instance. Its installations for heads up to 100 feet embody the celebrated Jolly-McCormick turbines. These turbines the company is prepared to furnish in a variety of settings and combinations. The exact form of installation will depend, of course, on the local conditions, head, speed, power required, contour of neighboring land, etc. Write the company for copy of booklet.

Grapholite Roof Coating.

"Good to make a bad roof good; good to keep a good roof good." That is the watchword of the booklet telling about the merits of Grapholite Roof Coating. This coating is being used largely throughout the United States by many of the best-known public enterprises, as well as private companies and individuals looking for the best in roof and iron paint. Grapholite is composed principally of refined Trinidad asphaltum and granulated graphite, or black lead—which is practically indestructible by either fire or acids—and, combined as it is with other gums and rustproof compounds, makes the Grapholite coating unsurpassed as a protector of metal surfaces. The Champion Paint Co. of Columbia, S. C., manufactures Grapholite. This Southern company has introduced its specialty throughout that section, and is rapidly showing the superiority of the coating and paint to other parts of the country. Write for the booklet, which tells the facts.

Memorial of Frederick J. Warren.

An interesting memorial, a tribute to the late Frederick John Warren, has been printed for limited distribution. It presents an appreciation of the life and work of Mr. Warren, who was the organizer of the Warren Brothers Company of Boston, which has developed under his guidance to be one of the most important paving industries in the United States. Although comparatively a young man—39 when he died in February—Mr. Warren had accomplished a great work, and during his 20 years of ardent service in his chosen field of activity had completed many important contracts, besides originating and patenting important features in the construction of the bituminous or bitulithic pavement and the manufacture of bituminous cement. Those who have personally known Mr. Warren are the ones who can fully appreciate his loss, for not only in his business enterprises, but in the more confidential relations of life, he was most highly regarded.

The Model Automatic Smokeless Furnace.

There is now being issued an illustrated pamphlet descriptive of an improved boiler furnace which is designed to give, and will give in a practical sense, instantaneous complete combustion, thereby effectively preventing smoke and producing a greater quantity of heat per pound or ton of coal burned. The furnace enables users to consume any available cheap coal, gives greater steaming capacity to any boiler and meets sudden variations of duty or load, and withal give satisfactory durability as well as flexibility of service, and saves enough in fuel alone to repay at least 25 per cent. per annum on the installation cost. This equipment is a completely automatic furnace (self-cleaning as well as self-feeding) that will do the work and be durable. It is the Model Automatic Smokeless Furnace manufactured by the Model Stoker Co. of Dayton, Ohio. Its various meritable features, method of construction, installation and operation are clearly explained in the pamphlet.

Southern Department of E. Keeler Co.

A booklet issued by the E. Keeler Company presents brief yet interesting facts regarding the rotary grate furnaces for bagasse, lignite, rice hulls and soft coal, water-tube boilers and superheaters, wash-back sterilizing filters for sugar-houses, distilleries, corn products plants, municipal water purification, etc. These specialties of the E. Keeler Company, which has its extensive manufacturing plant at Williamsport, Pa., have found great favor among discerning users of that class of equipment in the South and other sections. The company has a Southern department at New Orleans, La., where business for the territory tributary to that city is given prompt and careful attention. This Southern department is in charge of Lewis Metesser, offices in the Ilibernia Bank & Trust Building, and controls the Southern States, West Indies and Mexico. The superior features of the furnaces, boilers, filters, etc., mentioned have attracted much attention in the countries

named, and Mr. Metesser's efforts to introduce the Keeler specialties in them are meeting with success.

Reliance Stone-Crushing Machinery.

Contractors, construction works, road-builders and others interested in stone-crushing machinery will find information regarding the latest and best types of that class by examining the pages of the illustrated pamphlet issued by Messrs. Julian Scholl & Co., 126 Liberty street, New York. The pamphlet gives the facts about the Reliance stone-crushing machinery, comprising a line of equipment that is reliable, durable, powerful, efficient. The Reliance crusher embodies the simplest and most powerful mechanism possible for producing the movement necessary for crushing rock. This ensures the successful operation of the machine under the hardest service, and the steel construction is a guarantee of durability. The important features of the crusher may be mentioned as freedom from breakage, adjustments easily made, locked bolts and self-oiling journals, feeding facilitated, reversible jaw plates, etc. Reliance types are made both stationary and portable as needed for the user's requirements. Write Scholl & Co. for further particulars.

Standard Structural Iron Paint.

The American Standard Structural Iron Paint is an anti-corrosive paint giving the best protection against rust on iron and structural work, gas-holders and generators, bridges, skeleton work, fire-escapes, fencing, ammonia condensers, brine pipes, blast-furnace construction, smokestacks, water towers and metal work of all kinds exposed either above or under the ground. The American paint is offered by its manufacturer as impervious to moisture and the corrosive action of vapors and gases. It is heatproof and dampproof; will not crack or scale. An iron bar coated with the composition has been thrust into flames and kept there until red hot, then cooled, and the paint was found adhering to the iron. This paint is made in a rich, dark, lustrous red, which holds its brightness and gloss indefinitely. Convincing data regarding the paint is presented in an illustrated pamphlet now being distributed by the American Composition Co., the manufacturer of the American Standard Structural Iron Paint. The sales offices are at 1207 Wall street, New York.

Franklin Compressors—New Type.

Franklin compressors, when first introduced about four years ago, attracted attention among users of compressed air because of their sound design, massive yet graceful proportions and the exceptionally high engineering plane upon which their lines were based. From the outset these machines took an established place, a step in advance of older machines of their class, and marked a new era in the production of highly efficient air-compressing machinery. It was found later that while the original Franklin machines satisfied the ideals of those who wished the best obtainable and would pay the price, a reasonable demand existed for a class of compressor lighter in construction, yet equal to average requirements, purchasable at a somewhat less cost, and it is to meet this demand that the Type G compressors have been produced. A description of the new type is presented in an illustrated booklet now being issued. The Chicago Pneumatic Tool Co. builds the Franklin compressors; offices at 1010 Fisher Building, Chicago, and 95 Liberty street, New York.

Do You Operate a Factory?

If you are operating a manufacturing plant, you should not employ obsolete business methods. If you "estimate" the time of your workmen or take their word for it after they have "guessed," and base the cost of your product on uncertain data, you are not using the modern method. The latter is found in the Calculagraph, the machine which computes and records the actual working time of employees and can also print the time of day they begin and finish. The Calculagraph makes individual records for every operation on every product. It will make such records for all the work performed in a department and the records need not be copied. Just simply add the figures and you have the result desired. There are various other important features of the machine, all of which are detailed in a neat booklet issued by the Calculagraph Company, 1425 Jewelers' Building, New York city. This is the company which manufactures the Calculagraph, and has already marketed several thousand of the machines to the great satisfaction of the buyers and resultant economy in their plants.

"Reasons"—Concerning Engines.

There are reasons why some steam engines are superior to others in efficiency and durability. Men who have operated engines know

this and future engine users will find it out. An interesting booklet on the subject of engines is now being sent to those desirous of keeping posted regarding the latest developments in steam-engine practice. It is called "Reasons," and its text points out in a few well-chosen words and facts just how the Ideal engine has proven successful in 500 plans in Chicago, 250 in St. Louis and elsewhere, over 5000 being installed throughout the United States. Superior features of the Ideal engine are its simplicity, lubrication system, reliability, dustproof qualities, design, construction, finish and the price at which it is marketed. Messrs. A. L. Ide & Son, who manufacture the Ideal engine, maintain offices at 11 Broadway, New York; principal office and factory at Springfield, Ohio; branches at 318 Randolph Building, Memphis, Tenn.; 339 Carondelet street, New Orleans; 109 Main street, Houston, Texas, and 191 Elm street, Dallas, Texas, etc. Send to Springfield for a copy of "Reasons."

Air and Gas Compressors.

A 175-page book, describing and illustrating a complete line of steam, electric, gas and power-driven compressors of all types, including single and duplex and simple and compound, single and multistage, etc., is being distributed by the Laidlaw-Dunn-Gordon Co., 114 Liberty street, New York. It gives the results of the latest investigations upon air-valve gears (the most critical feature of an air compressor), and shows a gear combining the quietness, efficiency and high-speed qualities of mechanically-moved valves with the elasticity of poppet valves. The publication also explains the air lift for raising water from driven or bored wells, gives the amount of air required for pumps and drills, tells how to calculate pipe lines for compressed air, explains the effects of altitude and temperature, discusses the advantages of compounding and intercooling, the advantages of different valve gears for different purposes, the several methods of driving, and gives data on a hundred other things of use and interest to every actual or prospective user of compressed air. The book is a valuable addition to any technical library. Write for one.

Lime and Hydrated Lime.

The recent address of E. W. Lazell (vice-president of the Spackman Engineering Co. of Philadelphia) on the uses and tests of lime and hydrated lime has been reprinted in pamphlet form and is being distributed by the National Lime Manufacturers' Association, Charles Warner, president, Wilmington, Del. The subject is not treated in a purely scientific form, but rather facts are presented that may suggest possible improvements and economy in the process of manufacture and ways of extending the use of lime and lime products. The National Lime Manufacturers' Association thought the Lazell paper so valuable that it was ordered published, and will send copies to inquirers. The association has also offered two prizes of \$100 and \$50 for the best papers on lime versus gypsum plaster, to be written along lines indicated in an announcement sheet ready for mailing to applicants. It intends in this way to start general competition in the interest of the lime-manufacturing industry, which in some quarters has been allowed to lag recently. General and truthful competition is what is aimed at and the bringing out of desirable and valuable arguments in favor of lime.

The Cutler Mailing System.

In more than 200 cities throughout the world the Cutler Mailing System is in use, and is now properly regarded as a necessity in buildings which claim to be modern in appointment and convenience. A booklet giving interesting information regarding the system has just been issued. Its special aim being to lay before the constantly-increasing number of those interested as owners, architects and occupants of the modern business building of whatever class a clear, non-technical, easily comprehended statement of what the Cutler system is and does. The latest developments in the Cutler Mailing System for the concentration and collection of mail in office and other buildings are presented. In issuing the booklet the Cutlers have not failed to express to the architects of the country their appreciation of the material aid given by that profession in the widespread and successful installation of the Cutler system. The booklet itself is a highly creditable specimen of the printer's art, and its subject is illustrated with various reproductions of Cutler work in different cities of the United States and of views in the Cutler offices at Rochester. It seems almost needless to add that the Cutler Manufacturing Co. of Rochester, N. Y., is the patentee and manufacturer of the various specialties, appliances and metal work, etc., used in connection with the Cutler Mailing System.

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,

Baltimore, Md., June 7.

About the only feature in the Baltimore stock market during the past week was a little advance in the income bonds of the United Railways & Electric Co. Generally business was quiet and steady.

In the trading United Railways common sold at 14 1/4, the trust certificates from 14 1/4 to 14 3/4, the incomes from 60 3/4 to 62 1/4 and the 4s from 92 1/2 to 93; Consolidated Gas changed hands at 83 3/4 to 83; Seaboard common at 18 3/4 to 19 1/4 and the new common at 24 1/4 to 25 1/4, the rights at 3/4 to 5/8, the preferred 37 1/2 to 38 1/2, the new second preferred from 50 1/4 to 52, the 4s at 86 1/4 to 86 1/2, the 10-year 5s at 102 3/4 to 102 7/8, the 3-year 5s at 100 1/2 to 100 3/4; Cotton Duck 5s from 77 to 77 1/4; G. B. S. incomes 28 1/4 and the 1sts at 59.

Bank stocks sold as follows: Commercial and Farmers', 141; Mechanics', 26; Calvert, 60 3/4; Bank of Commerce, 25; Farmers and Merchants', 55 1/4; Second National, 190 1/4.

United States Fidelity & Guaranty was dealt in at 121 to 126, and Fidelity & Deposit rights from 2 1/2 to 3.

Other securities were traded in as follows: Northern Central Railway stock, 101 to 102 1/2; Atlanta Consolidated Street Railway 5s, 107 3/4; Georgia & Alabama Consolidated 5s, 112 1/4 to 112 1/2; Baltimore City 3 1/2s, 1930, 108 1/4; Norfolk Railway & Light stock, 13; do. 5s, 92; Atlantic Coast Line Consolidated 4s, 102; do. Connecticut 4s, certificates, 5-20s, 95 1/2 to 96; Central Railway Extension 5s (Baltimore), 118 1/4; Baltimore City Passenger 5s, 106 1/4; Seaboard & Roanoke 5s, 112 1/2; Twin City Rapid Transit Joint 5s, 108 3/4; Consolidation Coal Refunding 4 1/2s, 99 to 99 3/4; Macon Railway & Light 5s, 99; Richmond Traction 5s, 106 3/4; Georgia Southern & Florida 5s, 116; Anacostia & Potomac 5s, 104 1/2; Canton Company, 92; Baltimore & Potomac Main Line 6s, 111 3/4; City & Suburban (Washington) 5s, 106 1/4 to 106; Alabama Consolidated Coal & Iron preferred, 89; Augusta Railway & Light 5s, 103 1/2; Colorado Southern 4s, 94 1/2; Baltimore Brick 5s, 86 1/2; Consolidation Coal, 80 1/2; Coal & Iron 5s, 108 to 108 1/2; Virginia Railway & Electrical Development 5s, 98; Baltimore Brick stock, 11; Potomac Valley 5s, 118 1/2.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended June 7, 1905.

Railroad Stocks.	Par.	Bid.	Asked.
Atlanta & Charlotte.....	100	160	...
Atlantic Coast Line of Conn.....	100	362 1/2	...
Georgia Sou. & Fla. 1st Pref.....	100	97 1/2	...
Georgia Sou. & Fla. 2d Pref.....	100	66	...
Norfolk Railway & Light.....	25	12 1/2	13 1/4
Seaboard Railway Common.....	100	19 1/4	19 3/4
Seaboard Railway Preferred.....	100	38 1/4	38 3/4
United Railways & Elec. Co.....	50	14	14 1/4

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank.....	10	28 3/4	29
Commercial & Far. Nat. Bank.....	100	140	150
Farmers & Mer. Nat. Bank.....	40	55	56
First National Bank.....	100	146	150
German-American Bank.....	100	106	120
National Bank of Baltimore.....	100	122	125
National Bank of Commerce.....	15	25	...
National Howard Bank.....	10	11 1/4	...
National Marine Bank.....	30	35	...
National Mechanics' Bank.....	10	26	...
National Union Bank of Md.....	100	121	130
Third National Bank.....	100	107	...

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Colonial Trust.....	50	32	...
International Trust.....	100	138	142
Maryland Casualty.....	25	59	...
Mercantile Trust & Deposit.....	50	143 1/2	...
Security Storage & Trust.....	100	112	...
Union Trust.....	50	59	...
U. S. Fidelity & Guaranty.....	100	125	126

Miscellaneous Stocks.

Alabama Con. Coal & Iron.....	100	50	67 1/2
Ala. Con. Coal & Iron Pref.....	100	90	99

Consolidated Gas.....	100	83	83 1/4
Consolidation Coal.....	100	80	81 1/4
Cotton Duck Voting Trust.....	100	6 1/2	6 3/4
G. B. & S. Brewing Co.....	100	54 1/2	54 3/4
United Elec. L. & P. Pref.....	50	51	...
U. S. Cotton Duck Common.....	100	10	...

Railroad Bonds.	Par.	Bid.	Asked.
Albany & Northern 5s, 1916.....	100	94 1/2	...
Atlan. Coast Line 1st Con. 4s, 1952.....	100	101 1/2	102
Georgia South. & Fla. 1st 5s, 1952.....	100	92 1/2	...
Atlantic Coast Line (Conn.) 4s.....	100	94	95
Carolina Central 4s, 1949.....	100	98	...
Coal & Iron Railway 5s, 1920.....	100	108 1/2	...
Georgia & Alabama 5s, 1945.....	100	112 1/2	113
Georgia, Car. & North. 1st 5s, 1929.....	100	113 1/2	...
Potomac Valley 1st 5s, 1941.....	100	115 1/2	116 1/2
Ra. & Augusta 1st 6s, 1926.....	100	127	...
Seaboard Air Line 4s, 1950.....	100	86 1/2	87
Seaboard Air Line 5s, 10-year, 1911.....	100	102	103
Seaboard Air Line 5s, 3-year.....	100	100 1/2	100 3/4
Seaboard & Roanoke 5s, 1926.....	100	112	...
Southern Railway Con. 5s, 1941.....	100	119 1/2	...
Virginia Midland 1st 6s, 1906.....	100	115	115 1/2
Virginia Midland 5th 5s, 1926.....	100	115	...
Western Maryland new 8s, 1952.....	100	88 1/2	...
West Virginia Central 1st 6s, 1911.....	100	113	...

Street Railway Bonds.	Par.	Bid.	Asked.
Anacostia & Potomac 5s, 1949.....	100	104 1/2	105
Atlanta Con. St. Rwy. 5s.....	100	106 1/2	108
Augusta Rwy. & Elec. 5s, 1940.....	100	103 1/2	105
Baltimore City Passenger 5s, 1911.....	100	106	106 1/2
Baltimore Traction Conv. 5s, 1906.....	100	100	...
Central Ry. Con. 5s (Balto.), 1932.....	114	117 1/2	...
Central Ry. Ext. 5s (Balto.), 1932.....	118 1/4	...	...
Charleston City Railway 5s, 1923.....	100	92	92 1/2
Charleston Con. Electric 5s, 1936.....	94	94	94 1/2
City & Suburban 5s (Balto.), 1922.....	112 1/2	...	...
City & Suburban 5s (Wash.), 1948.....	106 1/2	106 1/2	...
Knoxville Traction 1st 5s, 1928.....	102	...	...
Lake Roland Elev. 5s (Balt.), 1942.....	116	...	...
Macon Rwy. & Lt. 1st Con. 5s, 1953.....	98 1/2	99	...
Metropolitan 5s (Wash.), 1925.....	119	...	...
Newport News & Old Pt. 5s, 1938.....	92	97	...
Norfolk Railway & Light 5s.....	91 1/2	92 1/2	...
Norfolk Street Railway 5s, 1944.....	105	...	...
North Baltimore 5s, 1942.....	120	122	...
Richmond Traction 5s.....	106	108	...
United Railways 1st 4s, 1949.....	92 1/2	93 1/2	...
United Railways Inc. 4s, 1949.....	62	62 1/2	...

Miscellaneous Bonds.	Par.	Bid.	Asked.
Alabama Consol. Coal & Iron 5s.....	100	91	91 1/2
Consolidated Gas 6s, 1910.....	100	109 1/2	110 1/2
Consolidated Gas 5s, 1939.....	100	118	...
G. B. & S. Brewing 1st 3-4s.....	50	59 1/2	...
G. B. & S. Brewing 2d Incomes.....	25	28 1/2	...
Maryland Steel 5s.....	102 1/2	109	...
Maryland Telephone 5s.....	101 1/2	101 1/2	...
Mt. V. & Woodby Cot. Duck 5s.....	77	77 1/2	...
Mt. V. & Woodby Cot. Duck Inc.....	30	30	...
United Elec. Light & Power 4 1/2s.....	96 1/2	96 1/2	...

SOUTHERN COTTON-MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending June 5.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	80	90
Anderson Cotton Mills (S. C.).....	110	...
Arkwright Mills (S. C.).....	113	...
Augusta Factory (Ga.).....	78	81
Belton Mills (S. C.).....	99	110
Bibb Mfg. Co. (Ga.).....	102	...
Brandon Mills (S. C.).....	99	102
Buffalo Cotton Mills (S. C.).....	87 1/2	...
Buffalo Cotton Mills (S. C.) Pfd.....	96	...
Cabarrus Cotton Mills (N. C.).....	136 1/2	...
Chadwick Mfg. Co. (N. C.).....	102	...
Chilquola Mfg. Co. (S. C.).....	84	95
Clifton Mfg. Co. (S. C.).....	101	106
Clifton Mfg. Co. (S. C.) Pfd.....	100	106 1/2
Clinton Cotton Mills (S. C.).....	155	...
Columbus Mfg. Co. (Ga.).....	88 1/2	...
Courtenay Mfg. Co. (S. C.).....	99 1/2	103
Dallas Mfg. Co. (Ala.).....	79	85
Darlington Mfg. Co. (S. C.).....	73	81
Eagle & Phenix Mills (Ga.).....	108	...
Easley Cotton Mills (S. C.).....	110	...
Enoree Mfg. Co. (S. C.).....	85	91
Enoree Mfg. Co. (S. C.) Pfd.....	99	102 1/2
Enterprise Mfg. Co. (Ga.).....	77	...
Exposition Cotton Mills (Ga.).....	160	200
Gaffney Mfg. Co. (S. C.).....	68	...
Gainesville Cotton Mills (Ga.).....	50	50
Granby Cot. Mills (S. C.) 1st Pfd.....	39	52
Granville Mfg. Co. (S. C.).....	135	...
Greenwood Cotton Mills (S. C.).....	95	101
Grendel Mills (S. C.).....	104	106
Henrietta Mills (N. C.).....	200	...
King Mfg. Co., John P. (Ga.).....	82	95
Lancaster Cotton Mills (S. C.).....	100	110
Lancaster Cotton Mills (S. C.) Pfd.....	94	102
Langley Mfg. Co. (S. C.).....	92	98
Larrens Cotton Mills (S. C.).....	96	...
Limestone Mills (S. C.).....	94	...
Lockhart Mills (S. C.).....	95	...
Louise Mills (N. C.).....	102	...
Louise Mills (N. C.) Pfd.....	102	...
Marlboro Cotton Mills (S. C.).....	92 1/2	...
Mayo Mills (N. C.).....	205	...
Mills Mfg. Co. (S. C.).....	93	...
Mills Mfg. Co. (S. C.) Pfd.....	100	100
Monaghan Mills (S. C.).....	101	103
Monarch Cotton Mills (S. C.).....	81	...
Newberry Cotton Mills (S. C.).....	114	...
Norris Cotton Mills (S. C.).....	99	101
Orangeburg Mfg. Co. (S. C.) Pfd.....	77	87
Orr Cotton Mills (S. C.).....	108	...
Pacolet Mfg. Co. (S. C.).....	149	151
Pacolet Mfg. Co. (S. C.) Pfd.....	102	106
Peizer Mfg. Co. (S. C.).....	174	176
Piedmont Mfg. Co. (S. C.).....	174	176
Poe Mfg. Co., F. W. (S. C.).....	125	136
Raleigh Cotton Mills (N. C.).....	100	...
Roanoke Mills (N. C.).....	124	126
Saxon Mills (S. C.).....	102	...
Sibley Mfg. Co. (Ga.).....	57	63
Southern Cotton Mills (N. C.).....	81	...
Spartan Mills (S. C.).....	135	137 1/2
Springfield Mills (S. C.).....	90	90
Trion Mfg. Co. (Ga.).....	120	140
Tucpau Mills (S. C.).....	125	133
Union Cotton Mills (S. C.).....	128 1/2	131
Union Cotton Mills (S. C.) Pfd.....	98	...
Victor Mfg. Co. (S. C.).....	118	...
Warren Mfg. Co. (S. C.).....	99	101
Warren Mfg. Co. (S. C.) Pfd.....	106	...
Washington Mills (Va.).....	20	...
Washington Mills (Va.) Pfd.....	116	...
Whitney Mfg. Co. (S. C.).....	125	...
Wicacassett Mills (N. C.).....	97	99
Woodruff Cotton Mills (S. C.).....	97	99

The People's Savings Bank of Washington, D. C., has taken possession of the building at 610 14th street northwest. The capital of the bank has been increased to \$100,000.

Bank Reports.

The Frost National Bank of San Antonio, Texas, reports at close of business May 29 loans and discounts, \$1,311,641; cash, \$1,415,976; capital, \$250,000; surplus and undivided profits, \$273,087; deposits, \$2,205,724; total resources, \$2,778,812. T. C. Frost is president; J. T. Woodhull, vice-president, and Ned McIlhenny, cashier.

The Cleveland National Bank of Cleveland, Tenn., reports at close of business May 29 loans and discounts, \$474,522; cash and sight exchange, \$169,971; capital, \$150,000; surplus and profits, net, \$148,394; deposits, \$411,391; total resources, \$859,785. J. E. Johnston is president; W. P. Lang, cashier, and Frank J. Harle, assistant cashier.

The First National Bank of Sparta, Ga., reports at close of business March 14 loans and discounts, \$216,213; cash and due from banks, \$43,276; capital, \$50,000; surplus and undivided profits, \$8366; deposits and due from banks, \$149,872; total resources, \$289,858; John D. Walker, president; R. B. Baxter, vice-president, and H. L. Middlebrooks, Jr., cashier.

The State National Bank of Little Rock, Ark., reports at close of business May 29 loans and discounts, \$343,066; cash and sight exchange, \$204,826; capital, \$100,000; surplus and net profits, \$7551; deposits, \$458,772; total resources, \$636,324; L. W. Cherry, president; R. D. Duncan, vice-president; Robt. S. Hamilton, cashier, and W. W. McLaughlin, assistant cashier.

The Commercial National Bank of Houston, Texas, reports at close of business May 29 loans and discounts, \$1,269,177; cash and sight exchange, \$2,270,645; capital, \$300,000; surplus, \$300,000; undivided profits, net, \$149,767; individual and bank deposits, \$3,150,055; total assets, \$4,069,822. W. B. Chew is president; James A. Baker, Jr., and J. S. Rice, vice-presidents; F. B. Gray, cashier, and Geo. L. Price and W. E. Hertford, assistant cashiers.

The First National Bank of Birmingham, Ala., reports at close of business May 29 loans and discounts, \$4,044,154; cash in vault, with banks and with United States treasurer, \$2,395,032; capital, \$500,000; surplus and profits, \$325,152; deposits, \$5,741,915; total resources, \$7,067,067. W. P. G. Harding is president; J. H. Woodward, vice-president; J. H. Barr, vice-president and cashier; A. R. Forsyth, F. S. Foster and Thomas Bowron, assistant cashiers.

The Birmingham Trust & Savings Co. of Birmingham, Ala., reports at close of business May 29 loans and discounts, \$2,322,354; due from banks and bankers, \$972,795; cash in vault, \$416,988; capital, \$500,000; surplus, \$175,000; undivided profits, \$67,153; individual deposits, \$2,792,939; total resources, \$3,949,799. Arthur W. Smith is president; Tom. O. Smith, vice-president; W. H. Manly, cashier; Benson Cain, assistant cashier, and Chappell Cory, secretary.

Bond Exchange Plan.

J. P. Morgan & Co. call the attention of holders of their certificates of deposit for the first mortgage 4 per cent. gold bonds of the Pittsburg & Western Railway Co. to the fact that the Baltimore & Ohio Railroad Co. has acquired and deposited, as additional security under the mortgage securing that company's Pittsburg, Lake Erie & West Virginia system refunding mortgage gold bonds, more than 75 per cent. of the Pittsburg & Western first mortgage bonds, and also that the remaining holders of these bonds, which mature in 1917, may have the opportunity of receiving in exchange for them the company's new Pittsburg, Lake Erie & West

Virginia system refunding mortgage 4 per cent. gold bonds of 1941, the company has arranged with the bankers to exchange these bonds on even terms, with accrued interest, on the respective issues, adjusted in cash at the date of the exchange. This exchange must be made through J. P. Morgan & Co. within 30 days from June 1. Bondholders who do not desire to make this exchange will receive par and accrued interest in cash for their certificates upon presentation to the bankers.

Washington Bankers.

At the annual meeting of the Washington Bankers' Association, held at Washington, D. C., June 5, the following officers were elected: John Joy Edson, president; Clarence F. Norment, first vice-president; W. V. Cox, Second National Bank, second vice-president; William E. Mearns, Lewis Johnson & Co., secretary, and F. H. Smith, Union Savings Bank, treasurer; members of the council, W. J. Flather, Riggs National Bank; C. E. White, National Bank of Washington; B. F. Saul, Home Savings Bank, and S. T. Brown, Farmers and Mechanics' Bank.

New Corporations.

A new State bank is reported being organized at Murfreesboro, Tenn., with \$50,000 capital. B. F. Moore is the principal promoter.

The Anniston Bank of Anniston, Mo., with \$15,000 capital, has been incorporated by N. C. Curry, J. S. White, S. T. Foust and others.

The Bank of Commerce of Pawhuska, O. T., has been incorporated, with \$10,000 capital, by J. L. and B. D. Scarborough, M. E. and J. L. Reger.

The Farmers and Merchants' Bank of Cabool, Mo., has been organized, with \$10,000 capital. It is reported Jim McDowell will be cashier.

The Farmers and Merchants' Bank of Crocker, Mo., capital \$10,000, has been incorporated by J. L. Hoops, J. W. Vanloon, O. W. Shockley and others.

The Waverly Bank of Waverly, Mo., with \$25,000 capital, has been incorporated by W. S. Woods, Henry G. Niederjohn, John A. Messel and others.

The Merchants and Farmers' Bank of Smithfield, Va., \$30,000 to \$50,000 capital, has been organized with the following officers: W. P. Wilson, president; B. P. Gay, vice-president; W. R. Myers, cashier.

The First National Bank of Pocahontas, Va., has been incorporated with \$35,000 capital by George W. Gillespie of Tazewell, J. S. Gillespie, O. St. Clair, W. F. Morris, V. L. Sexton and A. P. Gillespie.

The Brady National Bank of Brady, Texas, has been approved; capital \$50,000. The organizers are F. W. Henderson, Brady, Texas; John P. Sheridan, T. J. Wood, F. M. Richards and T. J. Spiller.

The First National Bank of Blanket, Texas, has been approved; capital \$25,000. The organizers are Whit George, Italy, Texas; G. M. Carlton, W. H. Shelby, J. M. Higginbotham, J. B. George and others.

It is reported that a new bank with \$50,000 capital, to be known as the Mercantile Bank, is being organized as Newberry, S. C., by prominent business men, including Dr. R. C. Carlisle and J. D. Davenport. Harry Carson.

The Rex Permanent Building and Loan Association has been incorporated at Baltimore, Md., with \$312,000 capital, by George R. Ruhl, Peter J. Carson, John P. Huether, Edward L. Thompson and J.

The Milner Banking Co., with \$25,000 capital, has organized at Milner, Ga., by electing the following officers: J. O. Norris, president; W. G. Tyrus, W. M. Rice, T. J. Hunt and H. T. Lindsay, directors.

Business is expected to begin September 15.

The Aquilla State Bank has been organized at Aquilla, Texas, with \$10,000 capital. The officers are J. W. Butler, president; J. L. Cauble, first vice-president; O. M. Cato, second vice-president; M. G. Olsen, cashier.

The Planters' Bank of Ridgely, Tenn., has been chartered, with \$20,000 capital. The incorporators are H. B. Blank, J. P. Grey, A. P. Smith, V. C. Giles, W. U. Wyatt, W. W. Alexander, T. J. Foster and J. E. Riley.

The Crescent Savings Bank & Trust Co. of Shelby county has been incorporated at Memphis, Tenn., with \$10,000 capital by A. E. Rosenstein, John Kelly, Morris Joseph, M. H. Raymond and Samuel Friedlander.

The First National Bank of Franklin, Texas, capital \$25,000, has been approved. The organizers are C. C. Walsh, Van Alstyne, Texas; Robt. S. Glass, Robt. M. Duffey, M. D. Sharp, John H. Lomax and W. Bartholomew.

The First National Bank of Hancock, Md., capital \$25,000, has been approved. The organizers are U. B. McCandlish of Westernport, Md.; DeWarren W. Reynolds, William A. Morgan, Roderic Clarey and F. J. Landstreet.

The Ada Savings & Loan Co. has been incorporated at South McAlester, I. T., with \$50,000 capital. The stockholders are P. T. Pegues, Tom Hope, Frank Jones, John W. Beard, O. E. Cannon, T. J. Chambers and S. W. Hill.

The First National Bank of Christiansburg, Va., has been authorized to begin business with \$35,000 capital. The incorporators are Charles R. Colhoun, M. H. Tompkins, J. W. Walters, Allen I. Harless and Alward L. Johnson.

The First National Bank of Jeanerette, La., capital \$50,000, has been organized with the following officers: Hippolyte Patout, president; George John Labau and St. Paul Bourgeois, vice-presidents; Marcus Breckinridge Tarleton, cashier.

The Mercantile Trust Co., capital \$100,000, has been organized at Jonesboro, Ark., with the following officers: President, Dr. C. P. Merriwether of Walnut Ridge; vice-president, L. W. Copeland; secretary and treasurer, Rudy Copeland.

The Eastern Life Insurance Company Association of Washington, D. C., capital \$1000, has filed articles of incorporation. The incorporators are Alfred Heitmuller, Jr., Richard E. Wills, Horace G. Smithy, Clarence V. Sayer and H. Anton Heitmuller.

The Commercial Bank & Trust Co. of Laurel, Miss., capital \$100,000, has organized with the following directors: S. W. Abney, S. W. Lindsey, W. F. Rumble, E. S. Waite, W. F. Pettibone, J. H. Crawford, S. M. Jones and P. P. Saunders, president.

The Island City National Bank at Key West, Fla., capital \$100,000, has elected the following directors: George S. Waite, president; C. R. Pierce, vice-president; E. M. Martin, cashier; T. A. Sweeting, J. M. Phipps, J. T. Sawyer and Richard Peacon.

The Irvington Building and Savings Association, capital \$300,000, has been incorporated at Baltimore, Md., by Robert S. Green, George P. Klein, Edward W. Garman, Arthur H. McCrea, Charles Wiskow, Charles B. Bockman and Albert F. Bruner.

The Brand Banking Co. of Lawrenceville, Ga., has been granted a charter; capital \$35,000. The incorporators are C. H. Brand, E. M. Brand, L. M. Brand, T. R. Powell, A. M. Winn, T. A. Smith, F. T. Penticost and N. L. Hutchins, Jr., all of the county of Gwinnett.

The Citizens' Bank of Ashburn, Ga., is being organized, with \$25,000 capital, by D. H. Davis, W. A. Murray, R. Paulk,

W. W. Cowan, J. T. McLendon and A. B. Wells, all of Ashburn; W. W. Ashburn, Moultrie, Ga.; Z. H. Clark, Moultrie, Ga.; J. B. Norman, Jr., Norman Park.

The Harrison County Bank of Biloxi, Miss., \$25,000 capital, with privilege of increasing to \$100,000, has published its charter. The incorporators are D. J. Gay, L. A. Lundy, G. W. Grayson, C. B. Elarbee, R. M. Davis, W. M. Pardue, J. M. Kimbrough, Ulysses Desporte and H. I. Singer.

The Merchants and Farmers' Bank of Isle of Wight and Smithfield, Va., \$30,000 to \$50,000 capital, has been organized with the following officers: W. P. Wilson of Ferguson's Wharf, president; B. P. Gay, vice-president; W. R. Myers, cashier; J. W. Thomas of Smithfield, director.

The Monticello Bank & Trust Co. of Monticello, Ark., capital \$100,000 with privilege of increasing to \$200,000, has been granted a charter. The officers are R. L. Hardy, president, and R. W. Finn, C. T. Harris, W. M. Anderson, Ed. Spencer, H. M. Wilson, Walter Lambert and J. G. Williams, directors.

The Winder Savings Bank of Winder, Jackson and Walton counties, Georgia, capital \$25,000, has filed application for a charter. The stockholders are W. H. Toole, W. H. Quarterman, S. T. Ross, J. T. Strange, L. C. Russell, S. E. Sharpton and A. H. O'Neal of Jackson county, R. L. Rogers of Walton county and L. O. Benton of Jasper county.

The Bank of Princess Anne has been organized at Virginia Beach, Va., with from \$10,000 to \$30,000 capital, and business will soon begin with the following officers: Major John T. Woodhouse, president and cashier; D. Stormant, vice-president, and Johnston Ackiss, general counsel; directors, Geo. Simpson, James S. Groves, W. B. Rudolph, W. T. Jarvis, A. E. Kellam, A. J. Ackiss, D. Stormant, John T. Woodhouse, W. B. Wright, J. L. Walker and Judge L. D. Yarrell.

The Lagrange National Bank of Lagrange, Ga., has begun business with the following officers: President, Fuller E. Callaway; first vice-president, C. V. Truitt; second vice-president, F. M. Longley; cashier, P. C. Autrey; assistant cashier, H. D. Glanton; directors, Fuller E. Callaway, C. V. Truitt, J. G. Truitt, W. A. Holmes, S. H. Truitt, F. M. Longley, F. M. Ridley, R. C. Pharr, J. C. Roper, J. H. Edmondson, C. N. Pike, Roy Dallis, H. R. Slack, P. H. Hutchinson and E. C. Hood of Lagrange and H. M. Atkinson and Frank Hawkins of Atlanta.

The American National Bank at Chattanooga, Tenn., has been approved; capital \$250,000. The organizers are H. S. Probasco, president of the Bank of Chattanooga; Z. O. Patten, T. G. Montague, who recently retired as president of the First National Bank, which was consolidated with the Chattanooga National Bank; J. C. Guild, C. E. Jones, M. M. Hedge and others. The new bank will occupy the building now occupied by the Bank of Chattanooga, and the officers will be Mr. Probasco, president; Frank C. Nelson, cashier, and Geo. W. Gardenhire, assistant cashier.

The MANUFACTURERS' RECORD is informed that the Farmers and Merchants' Bank of Reynolds, Ga., will soon be organized with \$25,000 capital, and business is expected to begin August 15 with the following officers: J. J. Carson, president; W. M. Musselwhite, vice-president, and W. E. Marshall, cashier; directors, J. J. Carson, W. M. Musselwhite, C. H. Neisler, W. T. Ricks, F. A. Ricks, J. N. Bryan, E. A. Hollis, P. E. McDaniel, W. E. Marshall, H. S. Trawick, G. H. Goddard, A. D. Byrd, C. B. Marshall, J. G. Hill, W. T. Gostin, W. R. Rogers and F. F. Paris.

The Purcell Bank & Trust Co., with \$50,000 capital, has completed its organization at Purcell, I. T., and business will begin June 20 with the following directors: Ed. F. Swinney of Kansas City, Mo.; Tyson S. Dines of Denver, Col.; A. F. Tooley of Brunswick, Mo.; A. E. Rumsey of Pauls Valley, I. T.; Ed. B. Johnson and Charles S. Smith of New Castle, I. T.; J. A. Camp and T. J. Tobyns of Paoli, I. T.; J. R. Wells, T. F. Green and J. F. Sharp of Purcell. Ed. B. Johnson was elected president; J. F. Sharp, vice-president; A. F. Tooley, treasurer; A. F. Rumsey, secretary.

It is reported that the consolidation of the Chattanooga National Bank and the First National Bank of Chattanooga, Tenn., has been completed and that business has begun in the First National Bank Building with the following officers: Charles A. Lyerly, president; H. S. Chamberlain, first vice-president; J. T. Lupton, second vice-president; C. C. Nottingham, third vice-president; J. P. Hoskins, cashier; W. H. DeWitt, assistant cashier; directors, J. S. Bell, H. S. Chamberlain, John C. Griffiss, F. T. Hardwick of C. L. Hardwick & Co., bankers, Dalton, Ga.; George D. Lancaster, Charles A. Lyerly, J. T. Lupton, C. C. Nottingham, T. H. Payne and Mrs. K. D. Rathburn.

The State National Bank of Jennings, La., is reported to have begun business with the following officers: T. L. Waddell, president; P. L. Lawrence, vice-president; C. D. Andrus, cashier; directors, T. L. Waddell of Freeport, Ill., who will move to Jennings shortly; F. B. Williams of Patterson, R. E. Brooks, P. L. Lawrence, cashier of the First National Bank of Crowley, and C. D. Andrus, formerly with the First National Bank of Crowley. Among the prominent stockholders are William Adler, president of the State National Bank of New Orleans; S. G. Bayne, president of the Seaboard National Bank of New Orleans; H. S. Palfrey, cashier of the First National Bank of Franklin; Linn H. Dinkins of the Interstate Banking & Trust Co. of New Orleans, J. W. Cockerham, president of the Exchange Bank of Natchitoches, and Felix Simon of Mermentau.

New Securities.

Abbeville, Ala.—The MANUFACTURERS' RECORD is informed that the city has voted to issue \$20,000 of water-works bonds. Robert Newman is mayor.

Albany, Mo.—R. C. Peters & Co. of Omaha have purchased at 104 and interest the \$3000 of 6 per cent. Albany School District funding bonds.

Annapolis, Md.—Proposals will be received by Murray Vandiver, State treasurer, until noon June 29 for \$600,000 of 3½ per cent. public building loan bonds.

Baton Rouge, La.—The Hibernia Bank & Trust Co. of New Orleans has purchased \$300,000 of 4 per cent. 10-40-year refunding and public-improvement bonds.

Baton Rouge, La.—The State treasurer and the State auditor have purchased on behalf of the State \$20,000 of Fifth Levee District bonds at a premium of \$1.12.

Beaumont, Texas.—It is reported that an election will be held to decide the question of issuing \$10,000 or \$30,000 of fire-station bonds.

Bells, Tenn.—The city has voted in favor of issuing \$5000 of school-building bonds.

Bennettsville, S. C.—Bids will be received at any time by H. L. McColl, chairman, for the \$5000 of 4½ per cent. electric-light bonds.

Broxton, Ga.—MacDonald, McCoy & Co. of Chicago have been awarded at 104.32 the \$10,000 of 6 per cent. 1-20-year school-building bonds.

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Charleston, W. Va.—Sealed bids will be received by E. E. Hood, city recorder, until 8 P. M., July 6 for the \$80,000 of 4 per cent. Elk river bridge bonds; Wm. B. Mathews, I. Schwape and O. Aultz, finance committee.

Central City, W. Va.—Proposals will be received by the finance committee of the common council until noon June 22 for \$23,000 of 5 per cent. paving bonds.

[For Additional Financial News, See Pages 34 and 35.]

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